ADULT PERFORMANCE OUTCOME STUDY: WAVE 1 TO WAVE 3

Prepared by

CALIFORNIA MENTAL HEALTH PLANNING COUNCIL

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We are also indebted to staff of the State Department of Mental Health who performed statistical analyses of these data and consulted in their interpretation. Staff were very generous with their time and expertise. Without this spirit of collaboration, we could not have completed this report.

We would also like to thank representatives of the mental health constituency, in particular the California Mental Health Directors Association, whom we consulted in developing the workbooks and interpreting the results. They provided valuable insights into the data.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

EXECUTIVE SUMMAR

California's mental health system has experienced a dramatic transformation over the last 40 years. In 1958, persons. In 1997, the civilly committed population is less than 1,200 persons. Two factors contributed to this and early 1960s documented the negative and inappropriate effects of institutional care. Second, development c psychotic symptoms of some mental illnesses, offered for the first time the possibility that many persons could b

Another important factor was the development of community-based mental health services. A body of researc appropriateness of psychosocial treatment in community settings. A desire for more cost-effective forms of trea services. For example, in fiscal year 1996-97, the annual cost of placing a person in a state hospital is approxir placement in a skilled nursing facility with a special treatment program, is approximately $33,000 annually.

The vast majority of persons with serious mental illnesses now live in the community and receive services fr Realignment legislation enacted in 1991 gave local mental health departments greater flexibility over their re respond to their unique local needs. In addition, realignment incorporated many aspects of system reform aime and desires of persons with serious mental illnesses and their family members.

The statute established performance outcome measures to counterbalance greater local flexibility and autonor reform. In addition, performance outcome measures make the accomplishments of the mental health system mo bodies. Specifically, performance outcome measures are intended to quantify for each county measurable improving basic aspects of clients' quality of life. Additionally, performance outcome measures can be used to i

Methodology

To implement the requirement to collect performance outcome data, the mental health system developed 11 ou situation, financial status, and engaging in productive activity. An instrument was developed to collect the data Wave 1, was collected in the fall of 1993 on 4,038 clients statewide. The final wave, Wave 3, was collected in data was collected and analyzed, the California Mental Health Planning Council (CMHPC) prepared a work presents the results of that project, including statewide and regional averages for each outcome measure, an a their quality improvement systems, and examples of strategies used by local programs that were associated with

Local mental health boards and commissions (MHB/Cs) were responsible for providing a report on the outcom by county governing bodies to provide oversight of the local mental health system and to advise the governing b departments worked collaboratively to analyze the data and complete the workbooks. Some MHB/Cs commer health system and the role of the MHB/C. They also reported that the workbook was useful in promoting a dial

For the most part, local mental health programs took this project very seriously. Some of the analyses were perform more statistical analyses. Some counties used very inclusive techniques to ensure that all relevant stake

Results

Table 1 on Pages 8 and xiv provides a summary of the statewide and regional averages for all the outcome m Wave 3 are statistically significant and whether the regional averages are above or below the statewide average is reported with probability levels. For example ".01" means that the result has a 1 percent probability of being statistically significant.

Overall, information provided in the workbooks reveals that, when counties make an aspect of the service sy health clients. Counties reported the following examples of strategies they used that were associated with impro

- **Living in a House or Apartment without Supervision**

  In one county, the percentage of clients living in a house or apartment without supervision increased 26 pe This county reported that, because more clients wanted to live independently, it increased housing resources local housing authority and with landlords. Moreover, staff became more willing to let clients take chances.

- **Engaged in Productive Daily Activity**

  One county increased the percentage of clients engaged in productive daily activity by 16 percentage points this outcome through a major restructuring of its service delivery system. It developed multi-disciplinary provide clients with a greater range of services to increase functioning, which reduced the need for placem staff's knowledge of local resources available to clients and improved rapport with other service providers a

- **Working One or More Hours per Week**

  One county increased the percentage of clients working one or more hours per week by nearly 20 percent county credited its success to placing a major emphasis on vocational rehabilitation in its adult system c placing clients in jobs or vocational programs a major focus of case management staff. This county also District Office.

- **Using Social Support Network for Material Help**

  One county's percentage of clients using their social support network for material help increased 18 percen increase to its day treatment program, which provided services to most of the clients in its sample. This treatment dictates.

- **Doing Activities with Friends**

  One county, which had an increase of 13 percentage points from 75 percent at Wave 1 to 88 percent at Wa
  The county used these funds to develop a consumer self-help program that increased opportunities for doing
  of the Rehabilitation Option and its supported housing program promoted development of friendships.

Conclusions about the Performance of the State's Adult System of Care

In the areas of shelter and safety, the State's mental health system seems to be serving the clients in the sample
These clients have very limited involvement with the criminal justice system. Nearly 98 percent did not report l
90 percent reported that they had not been victimized by crime in the six months preceding the survey.

The mental health system seems to be performing satisfactorily for these clients in the social support domain. A
assistance with material tasks, such as transportation and shopping. Approximately 80 percent of clients repo
quality of life. One caution for the system, however, is that results for both these outcome measures had slight d
that services that enhance performance in this domain tend to be de-emphasized when resources are restricted.
consumer self-help programs, to help fill gaps in the service system.

Accessing health care for these clients presents a mixed picture. Over 85 percent had received physical healt
collected in fiscal year 1993-94, the Department of Health Services has implemented a variety of managed care
the concern expressed in the process to implement managed mental health care about the interface between prim
needs to continue to pay attention to this aspect of brokering services for clients. These clients also need more
had seen a dentist in the two years preceding the survey, which represented an increase from Wave 1. Howev
clients due largely to lack of access to services. The mental health system needs to focus on increasing access to

Approximately two-thirds of these clients had incomes under $700 per month, which severely affects anyone's d
on two fronts. The mental health system must put a much higher priority on supported and full employment fo
per week. This study demonstrates that counties who have made this aspect of their service system a priority
such as high unemployment and local economies with jobs not well suited for persons with mental disabilities
unemployment rates have made strides through concerted effort. For those clients unable to obtain paid emplo
ensure access to SSI/SSP and other forms of income support and to advocate for benefit levels that provide at le

The mental health system also needs to concentrate on providing other avenues for productive daily activity for
engaging in productive daily activity. Some counties had good results on this outcome measure because they us
activity, including supported employment, volunteer training and placement, and consumer self-help programs.

Plans To Improve the Process for Collecting Performance Outcome Data

The mental health system learned a great deal from this first attempt to collect performance outcome data. Pı
and the analysis and reporting of the results. To remedy these problems, the CMHDA, DMH, and CMHP(
performance outcome data.

These principles have been operationalized in the project to collect performance outcome data for children and
adults. The Children and Youth Project is based on the evaluation paradigm established to evaluate the effecti
By early 1998, all counties are expected to have implemented this data collection procedure.

The procedures for collecting the next performance outcome data for adults are still being developed. Nine cou
pilot project will be concluded in late 1997. A system is also being developed for older adults. However, this t
Physical limitations of the frail elderly, such as vision problems, limited attention span, and fatigue, mean that
for older adults. A separate pilot project is underway to identify instruments that can be used for older adults.

Table 1: Summary of Statewide and Regional Performance Outcome Data with Statistical Significance of Results

	STATEWIDE			SUPERIOR REGION			
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regiona Compa Statewid
Outcome Measure	**Wave 1**	**Wave 3**		**Wave 1**	**Wave 3**		**Wave 1**
Living in a House or Apartment without	**38.2**	**39.1**	ns	**38.5**	**41.0**	ns	ns
Satisfaction with Living Situation	**80.6**	**83.3**	(increase) <.01	**81.5**	**80.5**	ns	ns
Income above $700 per Month	**33.5**	**35.0**	ns	**35.5**	**36.4**	ns	ns
Engaged in Productive Daily Activity	**48.2**	**48.5**	ns	**47.2**	**51.9**	ns	ns
Working One or More Hours per Week	**20.4**	**23.9**	(increase) <.01	**20.8**	**25.0**	(increase) .05	ns
Not Arrested in the Last Six Months	**97.8**	**97.6**	ns	**98.0**	**96.2**	(decrease) <.05	ns
Not a Crime Victim in the Last Six Months	**88.0**	**90.3**	(increase) <.01	**88.0**	**91.0**	ns	ns
Received Physical Health Care in the Last Six Months	**85.4**	**85.6**	ns	**88.8**	**86.6**	ns	(above .05
Received Dental Care in the Last Six Months	**61.1**	**66.6**	(increase) <.01	**66.9**	**69.0**	ns	(above .01
Used Social Support Network for Material Help	**70.1**	**67.8**	(decrease) .05	**69.5**	**69.3**	ns	ns
Doing Activities with Friends	**81.7**	**79.9**	(decrease) <.05	**87.2**	**85.9**	ns	(above .001

Table 1: (cont'd)

	CENTRAL REGION					SOUTHERN REG		
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average		Percent Meeting Criteria		Change Between Wave 1 and Wave 3
Outcome Measure	**Wave 1**	**Wave 3**		**Wave 1**	**Wave 3**	**Wave 1**	**Wave 3**	
Living in a House or Apartment without	**39.8**	**39.9**	ns	ns	ns	**45.0**	**41.9**	ns
Satisfaction with Living Situation	**83.7**	**86.7**	ns	(above .01	(above) .001	**80.6**	**84.0**	ns
Income above $700 per Month	**35.9**	**36.8**	ns	(above) .05	ns	**30.8**	**32.4**	ns
Engaged in Productive Daily Activity	**44.2**	**41.7**	ns	ns	ns	**47.4**	**49.6**	ns
Working One or More Hours per Week	**17.4**	**20.9**	(increase) <.01	(below) .01	(below) .01	**21.8**	**24.5**	ns
Not Arrested in the Last Six Months	**98.1**	**97.5**	ns	ns	ns	**98.0**	**97.9**	ns
Not a Crime Victim in the Last Six Months	**87.9**	**91.5**	(increase) <.01	ns	ns	**88.4**	**91.0**	ns
Received Physical Health Care in the Last Six Months	**82.1**	**83.8**	ns	(below) .001	(below) .05	**85.3**	**87.9**	ns
Received Dental Care in the Last Six Months	**60.1**	**65.4**	(increase) <.01	ns	ns	**60.5**	**66.5**	(increase) <.01
Used Social Support Network for Material Help	**71.0**	**68.6**	ns	ns	ns	**75.2**	**70.8**	(decrease) <.05
Doing Activities with Friends	**83.4**	**80.9**	ns	ns	ns	**81.8**	**80.6**	ns

CHAPTER 1
INTRODUCTION

California's mental health system has experienced a dramatic transformation over the last 40 years. In 1958, the resident population in state hospitals was approximately 37,000 persons. In 1997, the civilly committed population is less than 1,200 persons. Two factors contributed to this change. First, a series of research studies published in the late 1950s and early 1960s documented the negative and debilitating effects of institutional care. Second, development of psychotropic medications, which partially controlled and calmed the psychotic symptoms of some mental illnesses, offered for the first time the possibility that persons could be treated humanely and effectively in the community. (California Institute for Mental Health 1996)

Another important factor was the development of community-based mental health services. A body of research evolved in the 1960s that supported the potential effectiveness and appropriateness of psychosocial treatment in community settings. A desire for more cost-effective forms of treatment also propelled the transition to community-based mental health services. For example, in fiscal year 1996-97, the annual cost of placing a person in a state hospital is approximately $150,000. The other alternative for institutionalizing someone, placement in a skilled nursing facility with a special treatment program, is approximately $33,000 annually.

Philosophy of California's Mental Health System

With enactment of realignment legislation in 1991, California reaffirmed its mission to provide persons with serious mental illnesses and children with serious emotional disturbances access to services and programs to assist them to better control their illness, to achieve their personal goals, and to develop skills and supports leading to their living the most constructive and satisfying lives possible in the least restrictive environment. To underscore this mission, the State also adopted a set of principles specifying that services are to be client-centered, culturally competent, and fully accountable.

Role of Performance Outcome Measures in Realignment and Managed Care

Realignment gave local mental health departments greater flexibility over their resources and greater autonomy to develop mental health systems that respond to their unique local needs. In addition, realignment incorporated many aspects of system reform advocated by the *California Mental Health Master Plan*. (AB 904 Planning Council 1991) These system reform proposals aimed to create a mental health system that is more responsive to the needs and desires of persons with serious mental illnesses and their family members.

The statute established performance outcome measures to counterbalance greater local flexibility and autonomy and to gauge the system's progress toward accomplishing system reform. In addition, performance outcome measures make the accomplishments of the mental health system more tangible to policymakers in the Legislature and on county governing bodies. Specifically, performance outcome measures are intended to quantify for each county measurable changes in clients' lives to determine if mental health services are improving basic aspects of clients' quality of life. Additionally, performance outcome measures can be used to identify strengths and weaknesses in a county's adult system of care.

Performance outcome measures are also necessary as implementation of managed care proceeds in the mental health system. Authorizing legislation for managed mental health care in California, Chapter

633, Statutes of 1994, requires use of performance outcome measures for evaluating the effectiveness, accessibility, and quality of managed mental health care services. Performance outcome measures can also assist implementation of managed care in the following areas:

- help define priority areas for improvement and follow up;
- identify meaningful trends in treatment, access, and quality;
- assist in planning for service improvement; and
- ensure that state oversight efforts will be meaningful for consumers and mental health plans.

Roles and Responsibilities for Implementing Performance Outcome Measures

- Department of Mental Health (DMH)--Welfare and Institutions Code (WIC) Sections 5611 and 5612 require the DMH to establish a Performance Outcome Committee to develop measures of performance for evaluating client outcomes and cost effectiveness of mental health services. WIC Section 5613(b) requires the DMH to make data on county performance available annually to the Legislature.
- Local Mental Health Departments--WIC Section 5613(a) requires counties to report annually on performance outcome data to their mental health boards and commissions (MHB/Cs) and to the DMH.
- MHB/Cs--WIC Section 5604.2 requires MHB/Cs to submit an annual report to the governing body on the needs and performance of the county's mental health system and to review and comment on the county's performance outcome data and communicate their findings to the California Mental Health Planning Council (CMHPC).
- CMHPC--WIC Section 5772(c) requires the CMHPC to review and approve performance outcome measures. In addition, the CMHPC is required to review the performance of mental health programs annually based on performance outcome data and report its findings to the Legislature, the DMH, MHB/Cs, and local governing bodies.
- County Governing Bodies--Governing bodies receive annual reports from MHB/Cs and the CMHPC on the counties' performance outcomes.

Process for Developing Performance Outcome Measures

The process for developing performance outcome measures and generating data for each local mental health program has had many stages. Initially, the DMH established the Performance Outcome Committee required by statute to begin work on the project. The committee consisted of representatives of all key stakeholders. It based its approach to developing outcome measures on values, i.e., considering what values the mental health constituency shares about providing mental health services to adults and how those values could manifest themselves in outcome measures. The committee began its work by reviewing outcome measures developed for the AB 3777 pilot project and values contained in the "Adult System of Care" chapter in the *California Mental Health Master Plan*.

Once the committee agreed on the values for the adult system of care, it generated outcome measures that would indicate for each value whether mental health services provided by the county were improving the quality of clients' lives. Measures were developed for many domains, such as living situation, financial status, and engaging in productive activity. When this phase was completed, staff began the task of developing the data collection instrument.

While work was being done on the performance outcome project, a parallel process was underway to review all state-level advisory structures and to develop a structure at the state and local levels consistent with realignment. The result of this project was the creation of the California Mental Health Planning Council, which was given responsibility to review and approve performance outcome measures and to use the data to provide system oversight and accountability for programs operated by the DMH and local mental health departments. The composition, appointment process, and duties of MHB/Cs were also modified to be consistent with realignment. MHB/Cs were given responsibility to review and comment on their counties' performance outcome data.

Ultimately, the DMH presented the outcome measures for the adult system of care to the CMHPC, and the CMHPC's Adult Committee has reviewed and commented extensively on the measures and on the data collection instrument. Appendix 1 on Page 41 contains the original outcome measures.

Framework for Using Performance Outcome Data in Quality Management Systems

The results for performance outcome measures are important, and the CMHPC comments on the level of performance of California's mental health system in Chapter 4. However, the way counties used the data in their quality management systems is even more important than the actual results. In collaboration with the CMHPC and the DMH, the California Mental Health Directors Association developed a framework for a quality management system. (California Mental Health Directors Association 1994) The public mental health system has three major components as shown in Figure 1 on Page 4:

- planning
- service delivery; and
- quality management.

Information derived from process and outcome indicators is analyzed and interpreted using a continuous quality improvement approach. Based on the results, processes will be reinforced, improved, revised, or discontinued through activities, such as:

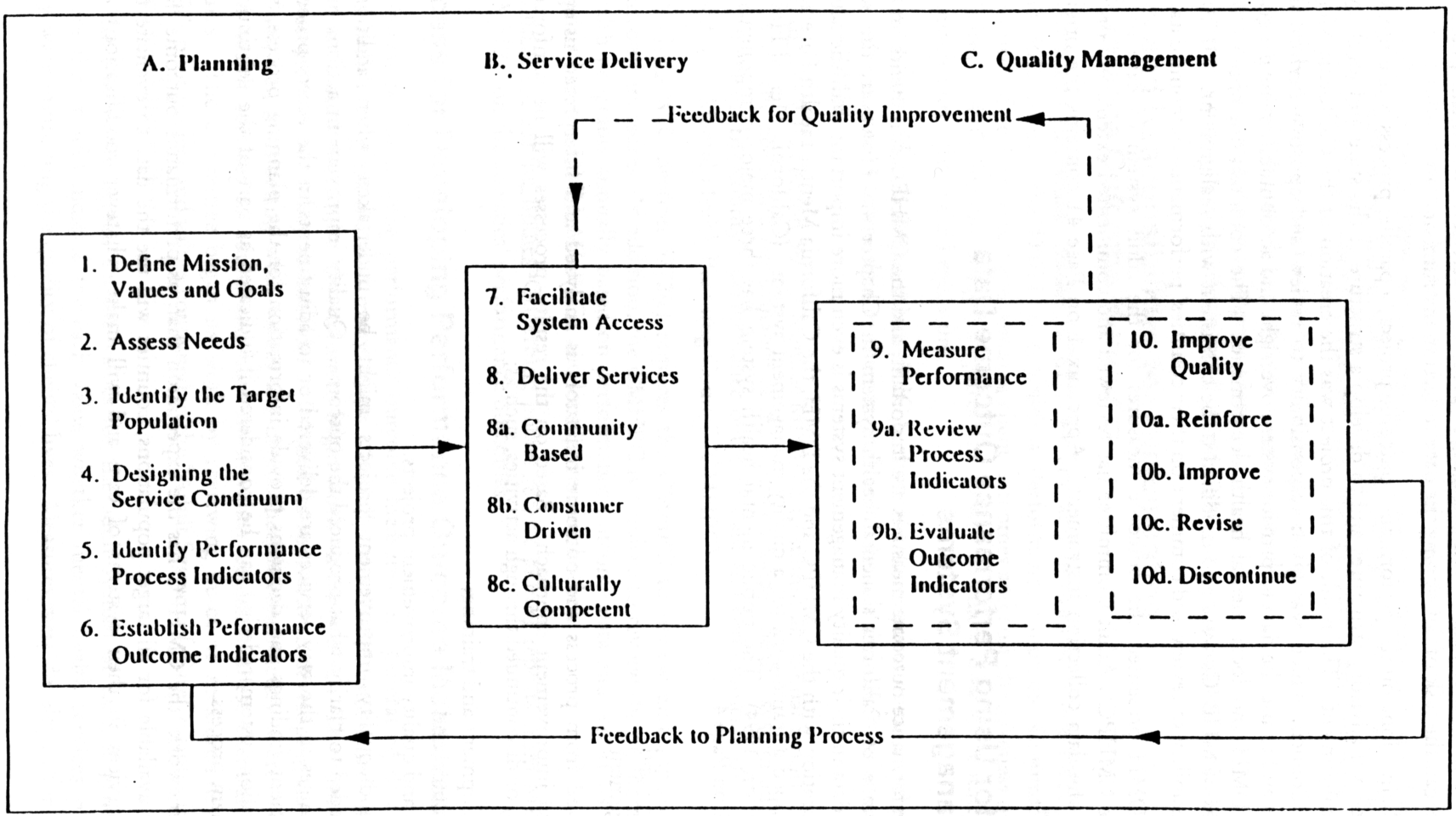
- staff skill development and training;
- technical assistance; and
- special studies and quality improvement projects.

Special studies and quality improvement projects might be undertaken when additional information is needed to clarify what produced the outcome. Quality improvement actions may lead to minor changes in the way services are delivered or to adjustments in the access process. Quality improvement findings and decisions provide information for the planning process, the point at which major system redesign can be considered if indicated as part of the continuous quality improvement process.

Based on this framework, the CMHPC has the expectation that, as performance outcome data become routinely available for all target populations, counties will use the data to evaluate the effectiveness of services in their systems of care and will make whatever modifications are warranted.

Figure 1: Public Mental Health Managed Care System

Figure 1: Public Mental Health Managed Care System



Source: California Mental Health Directors Association, Quality Management System Committee. "Framework for a Quality Management System for Public Mental Health Managed Care in California."

CHAPTER 2
METHODOLOGY

This chapter describes the methodology used to conduct this study, including sampling, the meaning of the outcome measures, and how the data were collected and analyzed. This chapter also presents a framework for a quality management system that describes how local mental health programs should use performance outcome data.

Sampling

To make data collection manageable, the study was designed to collect data on a sample of clients from each county. The DMH established parameters to select clients to be included for sampling. A client had to possess the following characteristics:

- have a diagnosed major mental disorder;
- be at least 18 years of age; and
- have had at least five contacts with a county's mental health system in the past three months.

A contact was defined as one of the units of service in the Cost Reporting/Data Collection manual. For example, one outpatient visit, one medication visit, one contact with a case manager, or one day of hospitalization would each count as one contact. These parameters were established for the following reasons:

- to increase the probability that data were collected on clients who met the target population definition for adults;
- to increase the probability that clients could be located for at least one year for additional data collection;
- to screen out clients admitted only one time on an involuntary hold; and
- to screen out those admitted only for substance abuse detoxification.

To generate the sample, the DMH first had to specify the confidence limit and the degree of error it was willing to accept in the results. The confidence limit was established at 95 percent with an error rate of plus or minus 10 percent. These figures mean that in 95 out of 100 samples the true value for the characteristic being studied is the actual figure produced by the study plus or minus 10 percent. For example, if a county's result in Wave 3 for the percentage of clients who are satisfied with their living situation is 60 percent, that county can be sure that in 95 out of 100 samples studied, the result would be between 50 and 70 percent.

Using the most recent three months of data for each county from the Client Data System, the DMH generated a list of approximately 33,000 clients statewide who met the sampling criteria. From that list, the DMH generated a valid, random sample for each county. Appendix 2 on Page 47 contains the desired sample size and actual sample sizes for Wave 1 and Wave 3 for each county. Wave 1 data were collected in October and November 1993 on 4,038 clients statewide. Wave 2 data were collected in April and May 1994 on approximately 3,500 of the clients sampled in Wave 1. Wave 3 data were collected in October and November 1994 on 3,250 of the clients sampled in Wave 1.

Domains and Outcome Measures

A domain is a cluster of performance concerns all related to one aspect of a client's life. This project collected data on six domains. Each domain has two outcome measures except for the financial domain, which has only one. Figure 2 presents the outcome measures for each domain:

Figure 2: Domains and Outcome Measures

Domain: Living Situation
Living in a house or apartment without supervision
Satisfied with living situation

Domain: Financial
Income above $700 per month

Domain: Engaging in Productive Daily Activity
Engaged in productive daily activity
Working one or more hours per week

Domain: Avoiding Legal Problems
Not arrested in the last six months
Not a crime victim in the last six months

Domain: Physical Health
Received physical health care from a nurse or physician in the last two years
Received dental care in the last two years

Domain: Social Support Network
Using social support network for material help
Doing activities with friends

Data for the outcome measures were derived from one or more of the questions in the Adult Performance Outcome Survey (APOS), which is found in Appendix 3 on Page 51. This section of the report identifies the questions used to construct each outcome measure.

Domain: Living Situation

Living in House or Apartment without Supervision

This measure represents results of Question 21 from the APOS, the clinician's evaluation of whether the client requires routine or intermittent onsite supervision to maintain his or her current living situation. It is cross-tabulated with APOS Question 1, which identifies the current living situation. The following living situations are classified as independent: in a house or apartment alone, with unrelated others, or with family independent of their support; in a hotel; or in a room and board setting.

Satisfied with Living Situation

This measure represents results for APOS Question 2, which asks how satisfied a client is with the living situation identified in APOS Question 1. Clients who indicated they were somewhat or very satisfied with their living situation were counted for this measure.

Domain: Financial

Income above $700 per Month

This measure represents results of APOS Question 16. The DMH established the poverty level at an income of $700 and above per month. The threshold, $700 per month, is above the approximately $600 per month level of benefits from the Social Security Income/State Supplemental Program (SSI/SSP). To reach this threshold, a client would have either to be receiving wages or to receive SSI/SSP and work at least part time.

Domain: Engaging in Productive Daily Activity

Engaged in Productive Daily Activity

This measure represents results of APOS Questions 7, 11, and 12. It reports whether the client did volunteer activities in the past month, participated in any educational activities in the past three months, or worked.

Working One or More Hours per Week

This measure represents results of APOS Question 12 in which the client reported working one or more hours per week.

Domain: Avoiding Legal Problems

Not Arrested in the Last Six Months

This measure represents results of APOS Question 18 in which clients report whether they were arrested in the past 6 months.

Not a Crime Victim in the Last Six Months

This measure represents results of APOS Question 17 in which clients report whether they have been victims of crime in the past 6 months.

Domain: Physical Health

Received Physical Health Care from a Nurse or Physician in the Last Two Years

This measure represents results of APOS Question 19a in which clients indicated they had received a physical exam or other physical care from a doctor or nurse in the past two years.

Received Dental Care in the Last Two Years

This measure represents results of APOS Question 19b in which clients indicated they had received a dental check up or other dental care from a dentist in the past two years.

Domain: Social Support Network

Using Social Support Network for Material Help

This measure represents results of APOS Question 10 in which clients responded that, when they needed help with tasks, such as transportation, shopping, etc., they called friends, a spouse or significant other, other family members, self help group members, or clergy.

Doing Activities with Friends

This measure represents results of APOS Questions 7 and 8 in which clients indicate they do any activities listed in Question 7 with friends, a spouse or significant other, other family members, or others.

Data Collection

Each county collected data on its clients in the sample using the APOS. This instrument had two parts. An interviewer was supposed to ask clients the questions in Part I, and mental health staff were to answer the questions in Part II. Table 2 summarizes the types of persons who conducted the

interviews. Mental health staff conducted the interviews in over 85 percent of the counties. One county had direct consumers do the interviewing. Three other counties used other persons, such as independent researchers or student interns.

Table 2: Administration of Surveys

	Number of Counties	Percent of Counties
Mental Health Staff	50	86.2%
Direct Consumers	1	1.7%
Family Members	0	0.0%
Other	3	5.2%
No Answer	4	6.9%
Total	58	100.0%

Data Analysis

Data were analyzed for the 3,250 clients who completed the APOS at both Wave 1 and Wave 3. The CMHPC analyzed the data according to whether clients met the criteria for the outcome measure. For example, for Living in a House or Apartment without Supervision, a client met the criteria for the measure if he or she was living in a house or apartment without supervision. Conversely, the client would not meet the criteria if he or she was living in a board and care facility or an IMD. Percentages were calculated for how many clients met the criteria at Wave 1 and at Wave 3.

Data Reported by Region

Because this project was the first attempt in this State to collect performance outcome data on such a large scale, it encountered various methodological problems, including conceptual problems with some outcome measures and sampling problems. These problems are discussed at greater length in Chapter 3. Moreover, interpreting differences in results among counties is fraught with difficulties because each county's unique client characteristics; socio-economic, political, and demographic conditions; and varying level of budgetary resources all influence the results. Data were collected and analyzed for each county; however, because of all these complexities, the CMHPC has chosen not to report results for individual counties.

Data for each county can be obtained from the local mental health departments. The CMHPC did provide each county's data to its MHB/C. Nearly all MHB/Cs held public hearings on their reports about the outcome data so this information has been made available to interested members of the mental health constituency.

To determine how well counties used performance outcome data in their quality management process, the CMHPC analyzed the data for each county and the material provided in the workbooks. Chapter 4 presents this assessment. The outcome data are provided in Appendix 6 starting on Page 69. The DMH calculated statewide averages and averages for each region, which are displayed in both graphic and tabular forms.

The California Mental Health Directors Association (CMHDA) developed the regions used in this report. Counties within a region tend to have somewhat similar characteristics in terms of population density, geography, and economic conditions. Figure 3 on Page 10 provides a map of California with the regions identified. Appendix 4 on Page 61 provides a list of counties by region. Los Angeles County is the only one for whom results are provided. Due to its size and unique nature, Los Angeles

County is a region by itself. The Los Angeles County Mental Health Department gave permission to have its data reported.

Tests of Statistical Significance

Two distinct statistical tests were used to determine if differences in the data were statistically significant. The McNemar Test was chosen for the Wave 1 to Wave 3 comparison in which each county was compared to itself. A single sample Chi-Square test was chosen for the comparison of each county to a statewide standard. All comparisons had 1 degree of freedom, and the alpha level was set at .05. The alpha level is the criterion for statistical significance.

The McNemar test is a dependent sample test that assumes that changes from 'before' to 'after' will occur randomly. Thus, improvements in performance are assumed as likely to occur as declines in performance. For example, if 30 clients show changes from Wave 1 to Wave 3, McNemar's test assumes that 15 will have improved, while 15 will have declined. This assumption exposes changes that do occur to a probabilistic assessment. What is the probability, for example, of an outcome of 27 improvements to 3 declines? Is the probability of such an outcome less than 5 percent? If it is, then one rejects the hypothesis that improvements and declines are equally probable and concludes that, at least in this case, improvements seem to be occurring more often than declines.

The McNemar test involved 56 mental health systems and 11 performance outcome measures. At the alpha level of .05, a total of 616 tests would be expected to yield 31 statistically significant results by chance alone. A total of 55 such results were actually found. If chance were the only influence operating in these results, 27 or 28 would be expected to show improvements. Approximately the same number would show declines. Instead, 36 results indicate improvement, and 19 indicate declines. Both the number of statistically significant findings and their distribution support the conclusion that change in a positive direction is occurring.

The single sample Chi-Square test, which was used for the comparison of each county to a statewide standard, allows an analyst to specify a theoretically expected outcome. Then, a disparity between an observed and an expected outcome can be subjected to a probabilistic assessment. In the current situation, the expected outcome is based on the hypothesis that each county is like every other county. The observed outcome is compared to the expected outcome based on all other counties combined, a kind of average county. By excluding each county in turn from the process of generating expected frequencies, the independence of the observed and the expected frequencies is maintained.

The statistical significance of regional averages compared with the statewide average is also determined using the single sample Chi-Square test. This technique requires that the regional average be compared with the average for the rest of the State excluding all counties in the region

Figure 3: California's Counties Identified by Region

being tested. For example, at the bottom of Table 12 on Page 71, regional averages are displayed along with the statewide average that excludes the data for that region. The statewide average excluding the region's data is the criterion against which the statistical significance of the regional average is tested.

Workbooks Developed To Facilitate Data Interpretation

The System Accountability Committee of the CMHPC developed the workbook format with technical assistance from the DMH and the CMHDA. The goal was to provide the data and facilitate their interpretation in a way lay persons could understand. Counties were instructed to evaluate all outcome measures that had meaningful differences. A meaningful difference was defined as one that exceeds the sampling error of plus or minus 10 percent. For example, an increase or decrease of more than 10 percent from Wave 1 to Wave 3 would be meaningful as would a result more than 10 percent above or below the statewide average at Wave 1 or Wave 3.

The workbook asked counties to consider their unique characteristics that would contribute to their performance and provided information on the prevalence of mental illness and various socio-economic data about all counties. For each domain, the workbook asked a series of general and specific questions designed to assist counties in identifying what strategies they employed that may have contributed to improved performance or results above the statewide average or what barriers they encountered to achieving success. The workbook also asked counties to report any recommendations they made to improve their adult systems of care.

Out of the 59 mental health programs in California, 54 submitted completed workbooks. Alpine County was not included in the original data collection process because it contained such a small number of mental health clients. The following four counties chose not to submit completed workbooks:

- Lake;
- Modoc;
- Tuolumne; and
- Santa Clara.

Process Counties Used for Completing the Workbook

The CMHPC requested that MHB/Cs and local mental health departments collaborate on completing the workbooks. MHB/Cs were designated as responsible for submitting the report on the workbook because the statute requires them to report to the CMHPC on performance outcome data.

Table 3 on Page 12 summarizes roles of MHB/Cs and local mental health departments in completing the workbooks. Nearly 75 percent of the counties employed the collaborative model that the CMHPC envisioned. Forty-three percent of the counties approached the project by forming a committee, work group, or task force composed of MHB/C members and key staff from the adult system of care to work together to interpret the data. An additional 32 percent of the counties formed committees made up of MHB/C members. These committees called upon local mental health departments for technical assistance as needed. Almost 25 percent of the counties did not employ the collaborative approach. In these counties, either the MHB/C or the local mental health department did the project with only limited involvement by the other party.

Table 3: Roles of MHB/Cs and Local Mental Health Departments in Workbook Preparation

Role of Local Entities in Workbook Preparation	Number of Counties	Percent of Counties
Collaborative effort between MHB/C and local mental health department	23	42.6%
MHB/C project with technical assistance from local mental health department	17	31.5%
MHB/C project only	4	7.4%
Local mental health department project with consultation with MHB/C	9	16.7%
No Answer	1	1.9%
Grand Total	54	100.0%

The CMHPC requested that at least one public hearing be held to review the performance outcome data with interested members of the public. Table 4 reports the hearing process used. Sixty-five percent of the MHB/Cs used a regularly scheduled meeting of their board for the public hearing. Another 25 percent made an extra effort to publicize the event using various techniques, such as distributing flyers at mental health programs, public service announcements on local television, and announcements in the newspaper. Four counties chose not to hold a public hearing.

Table 4: Public Hearing Process Used by MHB/Cs To Obtain Comment on the Counties' Performance Outcome Report

Public Hearing Process	Number of Counties	Percent of Counties
Held at regularly scheduled MHB/C meeting.	35	64.8%
Held at regularly scheduled MHB/C meeting. Extra effort made to publicize hearing.	13	24.1%
Public hearing not held.	4	7.4%
No answer.	2	3.7%
Grand Total	54	100.0%

Several counties used very innovative techniques to ensure full participation by stakeholders in interpreting the performance outcome data. These counties identified outcome measures requiring further study and solicited input from direct consumers and family members. For example, one county held three roundtable discussions with direct consumers to obtain their suggestions for how to improve aspects of the system. Another county developed a survey of additional questions to help understand the results for the outcome measures and to obtain recommendations for improving services. This survey was provided to members of the county's consumer self-help group and Alliance for the Mentally Ill chapter.

Method for Assessing How Counties Used Performance Outcome Data in Their Quality Management Systems

To assess how local mental health programs used the data in their quality management systems, the CMHPC reviewed the workbooks the counties submitted. The contents of the workbooks were evaluated for each outcome measure having statistically significant results that also met the test for meaningful difference described above. Outcomes were classified into the following types:

- an increase from Wave 1 to Wave 3;
- a decrease from Wave 1 to Wave 3;
- above the statewide average at Wave 1 or Wave 3; or
- below the statewide average at Wave 1 or Wave 3.

The type of information the CMHPC expected in the workbook depended on the type of outcome a county had on an outcome measure. For increases from Wave 1 to Wave 3 and for results above the statewide average, the CMHPC was looking for strategies that contributed to those successful outcomes with the aim of reporting on best practices or model programs that other counties could draw upon.

For decreases from Wave 1 to Wave 3 or results below the statewide average, the CMHPC was looking for barriers to successful outcomes. Some barriers could be adverse socio-economic conditions, such as a high unemployment rate impeding employment of clients. Those kinds of barriers explain results and identify problems a local mental health department has no ability to influence. Other barriers resulting from management and operation of the local mental health system are within the power of the local mental health program to solve. For example, staff resistance to the client-driven approach to providing services can be overcome with training and supervision. For those types of barriers, the CMHPC also expected that local mental health programs would develop recommendations to improve their adult system of care.

CHAPTER 3

STRENGTHS AND LIMITATIONS OF PERFORMANCE OUTCOME DATA

This chapter describes the strengths of using performance outcome data to provide accountability in the mental health system as well as the limitations. Use of these data needs to be tempered by a realization of their limitations, which are produced by variability in the way the data were collected; problems with the representativeness of the sample; lack of benchmarks for evaluating the outcomes; and the very nature of mental illness, which makes achieving positive, consistent change difficult.

Strengths

This project for collecting and using performance outcome data is a good first step in developing a method of accountability for local mental health programs in a realigned mental health system. It is a useful tool that can help counties analyze what aspects of their adult system of care are working well for clients and what aspects need more attention. Moreover, this project provides valuable baseline information on the quality of life of persons with serious mental illnesses. This baseline data will enable the CMHPC to target improvement or declines for these outcome measures in future years and investigate causes of these changes.

The project also provides mental health boards and commissions with a structured process for implementing many of their statutory duties, including:

- WIC Section 5604.2(a)(1): review and evaluate the community's mental health needs, services, facilities, and special problems;
- WIC Section 5604.2(a)(3): advise the governing body and the local mental health director as to any aspect of the local mental health program;
- WIC Section 5604.2(a)(5): submit an annual report to the governing body on the needs and performance of the county's mental health system; and
- WIC Section 5604.2(a)(7): review and comment on the county's performance outcome data and communicate its findings to the California Mental Health Planning Council.

Limitations

Variability in Data Collection

Counties had some variation in who administered the surveys, which could affect the results. Table 2 on Page 8 summarizes who administered the surveys in the counties completing the workbooks. Since most counties used mental health staff to administer the surveys, this factor contributed only minimal variability to results. However, concern has been expressed that, when clinicians administered the surveys, clients may have tailored their answers to please their interviewers.

Another source of variability comes from training for interviewers administering the survey instrument. The training process was not well controlled. County staff relied only on printed instructions and a telephone help line to ensure uniformity of administration.

Intervals between data collection for each wave may have varied among counties because the period for collecting data was two months long. Counties could collect data on some or all of their clients at the beginning or end of this period. Consequently, data for some individuals may represent a 10-month interval while for other individuals it may represent a 14-month interval.

Representativeness of the Sample

To evaluate the representativeness of the sample, the DMH compared the Wave 1 and Wave 3 samples with the total Client Data System (CDS) adult population and the target CDS adult population. The difference between these two groups is that the target CDS population is limited to adults served by the system who have diagnosed major mental illnesses. Appendix 5 on Page 65 compares characteristics of adults being served by the mental health system with those sampled at Wave 1 and Wave 3.

The groups were analyzed along the following dimensions:

- diagnosis;
- age;
- ethnicity; and
- gender.

The Wave 3 sample differs from the target CDS population in three out of the four dimensions:

1. Diagnosis

Adults with schizophrenia are very over-represented in the sample for Wave 3. Adults with schizophrenia represented 26 percent of the target CDS population; however, they represented 45 percent of the Wave 3 sample. This imbalance began in the target survey population. This group of 33,000 clients met the sampling criteria of five units of service in three months. Adults with schizophrenia represented 39 percent of the target survey population. Clients with mood disorders were underrepresented in the Wave 3 sample. They comprised 42 percent of the target CDS population and 33 percent of the Wave 3 sample.

The effect of this imbalance is most likely to reduce the percentage of clients achieving the performance outcome measures studied. Although one cannot make sweeping generalizations, adults with schizophrenia being seen frequently by their local mental health departments are more likely to have guarded prognoses or more setbacks in their quality of life.

2. Age

Two age groups were underrepresented in the sample, and two were overrepresented. 18-24 year olds and 25-34 year olds were underrepresented. 35-44 year olds and 45-54 year olds were overrepresented.

3. Ethnicity

An imbalance in the representativeness occurs in two ethnicity categories. Whites were over-represented in the sample, which had 70 percent whites compared with 59 percent in the target CDS population. Blacks were underrepresented with 7 percent in the Wave 3 sample compared with 16 percent in the target CDS population.

4. Gender

The Wave 3 sample did not differ materially from the target CDS population on gender. Fifty percent of the target CDS population was male, and 50 percent was female. The Wave 3 sample had a slightly higher proportion of males: 52 percent male to 48 percent female.

Because local mental health programs expressed concern about the sampling criteria at various stages of the project, the CMHPC included a question in the workbook about whether the sample was representative of the adult target population in the county. The answers are summarized in Table 5.

Table 5: Representativeness of Samples

	Number of Counties	Percent of Counties
Representative	29	50.0%
Not Representative	23	39.7%
No Answer	6	10.3%
Total	58	100.0%

Nearly 40 percent of the counties reported that the sample was not representative of their adult target populations. At the time the DMH generated the random samples for the counties, several counties did not have their Client Data Systems up to date. This problem generated samples for those counties that were skewed ethnically, by age, or by treatment program.

Most of the other counties that concluded their samples were not representative did so because they did not like the sampling criteria. One effect of the sampling criteria is that some mental health clients were screened out of the sample. For example, some very stable clients who do not need to use services frequently, clients with geographical barriers to accessing services, or homeless clients who are mentally ill and avoid the service system were less likely to have been included in the sample. Although these counties may be justified in not using the data to generalize about their adult systems of care, these data did paint a picture of the quality of life for those clients in the sample. As such, the data warranted more effort at interpretation than some counties applied to the project.

Lack of Benchmarks

Another limitation with the study is a lack of benchmarks for the results. Providing a standard against which a county's results can be compared is a challenge because the mental health system has not established any norms or standards for what results would be acceptable for each measure. Consequently, to gauge of how effective a county is for each measure, this study compares counties' results with the statewide average.

Difficulty Measuring Outcomes for Persons with Serious Mental Illnesses

Improvement in outcomes for persons with serious mental illnesses is also difficult to achieve within the time period used in this study. The literature demonstrates that 12 months is an insufficient amount of time to realize a significant change or improvement for individual clients receiving mental health services. Similarly, with physical health care outcomes for treatment of chronic medical conditions may take "quite a long time" to achieve. (Brook 1996) "Within the mental health field, the problems are compounded by the fact that many disorders, and therefore outcomes, of interest are long-term and require longitudinal studies that are especially costly and difficult." (Pincus 1996) Change in system outcome measures for clients with serious mental illnesses typically does not show until services have been provided for at least two to three years. (Roth 1995) Another important characteristic of serious and persistent mental illness is its cyclical nature. Clients can make significant gains and then have setbacks. Continuous improvement cannot necessarily be expected. The literature identifies an additional reason some outcomes may be difficult to achieve. Differences in treatment orientation or emphasis across sites may account for lack of an effect for a given outcome measure. (Santos 1995, Chandler 1996)

CHAPTER 4
ANALYSIS OF RESULTS

This chapter reports the results for each outcome measure, providing the statewide average at Wave 1 and Wave 3. In addition to reporting the data, the chapter also provides an assessment of how local mental health programs used the data in their quality management systems and examples of strategies that contributed to positive outcomes as well as barriers that prevented counties from achieving success. It also summarizes recommendations counties made to improve their adult systems of care.

Counties Use of Performance Outcome Data in Their Quality Management Systems

Table 6 on Page 20 summarizes the types of outcomes that met the tests for statistical significance and meaningful difference. It categorizes the outcome by type and describes the kind of information provided in the workbooks to explain the outcome data. Overall, 138 results on various outcome measures met the tests for statistical significant and meaningful difference. Of those, 19, 14 percent, were for increases from Wave 1 to Wave 3; and 10, 7 percent, were for decreases from Wave 1 to Wave 3. Sixty-two of the results, 45 percent, were for outcomes that were above the statewide average; and 47, 34 percent, were for results below the statewide average.

For the most part, local mental health programs took this project very seriously. Approximately 60 percent provided explanations for their results. Some of the analyses were very sophisticated, requiring counties to collect additional data and perform more statistical analyses. Some counties used very inclusive techniques to ensure that all relevant stakeholders were involved in commenting on the data. Overall, information provided in the workbooks reveals that, when counties make an aspect of the service system a top priority, they achieve improved outcomes. Most counties shared their strategies for success, which are reported in this chapter.

On the other hand, review of the types of information provided in the workbooks also reveals room for improvement in counties' use of this data. Counties did not provide any explanations for 43, 31 percent, of the 138 results. However, most of these omissions, over 60 percent, were for results that demonstrated an increase from Wave 1 to Wave 3 or that were above the statewide average. Counties may not have understood that the CMHPC was as interested in identifying best practices as it was in pinpointing areas needing improvement.

The CMHPC was particularly concerned that counties develop recommendations for improving their adult systems of care when their outcome data indicated room for improvement. Counties need to place greater emphasis on analyzing decreases from Wave 1 to Wave 3 and results that are below the statewide average. Over 30 percent of the omitted information were for these two categories. Of the 28 counties describing barriers to success, 15, 54 percent, provided recommendations to improve the system of care. In cases where the barrier was socio-economic conditions beyond the counties' control, no recommendation is possible. However, several of these cases were problems within the counties' control to remedy; yet, they chose not to make recommendations.

One reason counties may not have made recommendations probably resides with the workbook itself. This workbook was the first of its kind in this State. To be thorough, the CMHPC generated many specific questions local mental health programs could answer for each outcome measure. The section on recommendations appeared at the end of the workbook. Some counties

Table 6: Information Provided in Workbooks Summarized by Type of Outcome

	Type of Outcome							
	Increase from Wave 1 to Wave 3		Decrease from Wave 1 to Wave 3		Above Statewide Average at Wave 1 or Wave 3		Below Statewi Average at Wave Wave 3	
Information Provided in Workbook	Number of Counties	Percent of Counties	Number of Counties	Percent of Counties	Number of Counties	Percent of Counties	Number of Counties	Perce Cour
Described strategies for success.	14	35%	0	0%	26	65%	0	
Described barriers to success.	0	0%	3	10%	0	0%	25	
Other explanations.	1	4%	3	11%	13	48%	10	
No answer.	4	9%	4	9%	23	53%	12	
Grand Total	19	14%	10	7%	62	45%	47	

reported to have been overwhelmed by the workbook, which could have contributed to incomplete analysis. Counties' recommendations for improving the workbook appear in Chapter 5 along with the recommendations from the CMHPC to improve the process.

Results for Outcome Measures and Use of Data by Counties

Domain: Living Situation

The outcome measures for this domain are based on the following values:

- Persons with mental disabilities have the right to choice, privacy, and independence in their living situations.
- Persons with serious mental disabilities should receive treatment and rehabilitation in the most appropriate and least restrictive environment, preferably in their own community.

Living in a House or Apartment without Supervision

Table 12 on Page 71 provides results for this outcome measure. Statewide, 38.2 percent of clients surveyed at Wave 1 were living in a house or apartment without supervision. At Wave 3, this percentage increased slightly to 39.1 percent; however, the increase was not statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 31 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 4, 14 percent, showed an increase from Wave 1 to Wave 3; and 16, 52 percent, were above the statewide average at Wave 1 or Wave 3. Two of the counties above the statewide average reported that the results were caused by an unrepresentative sample. Three other counties reported that their high percentages of clients living independently did not necessarily imply a positive outcome for those clients. These counties were in rural areas without access to supervised living arrangements. Consequently, clients living in the county would have to live independently even if that arrangement was not their ideal living situation. This information raises conceptual questions about this outcome measure that will be addressed further in Chapter 5.

Ten counties that showed increases from Wave 1 to Wave 3 or were above the statewide average at Wave 1 or Wave 3 described the strategies that contributed to their success. Three counties that were above the statewide average attributed their success to a major focus on case management. A rural county, which was 20 percentage points above the statewide average, reported that it has one case manager who devotes significant energy to finding clients affordable housing. This case manager works with each client individually and negotiates with landlords. Another county 15 percentage points above the statewide average explains its success with its intensive case management program that focuses on coaching clients in skills for living independently. The third county 10 percentage points above the statewide average indicates that its best strategy is having case managers in the field making home visits and providing living skills training. Additionally, two counties with improved outcomes at Wave 3 attributed their results to increases in case management staff. One of these counties increased the percentage of clients living without supervision by 26 percentage points from 39 percent at Wave 1 to 65 percent at Wave 3. The other county increased its results by 23 percentage points from 12 percent to 35 percent.

One county that showed an increase from Wave 1 to Wave 3 and one that was above the statewide average attributed their success to interagency and public-private partnerships. In one county, which increased the percentage of clients living independently by 11 percentage points from 28

Table 7: Summary of Type of Outcome for Each Outcome Measure

Table 7: Summary of Type of Outcome for Each Outcome Measure

	Type of Outcome							
	Increase from Wave 1 to Wave 3		Decrease from Wave 1 to Wave 3		Above Statewide Average at Wave 1 or Wave 3		Below Statew Average at Wav Wave 3	
Outcome Measure	Number of Counties	Percent of Counties	Number of Counties	Percent of Counties	Number of Counties	Percent of Counties	Number of Counties	Perc Cou
Living in a House or Apartment without Supervision	4	14%	0	0%	16	52%	11	
Satisfied with Living Situation	4	44%	0	0%	2	22%	3	
Income above $700 per month	1	11%	0	0%	7	78%	1	
Engaged in Productive Daily Activity	3	14%	2	9%	10	45%	7	
Working One or More Hours per Week	2	10%	0	0%	12	60%	6	
Received Physical Health Care in the Last Two Years	1	20%	0	0%	0	0%	4	
Received Dental Care in the Last Two Years	2	29%	0	0%	4	57%	1	
Using Social Support Network for Material Help	1	5%	5	26%	6	32%	7	
Doing Activities with Friends	1	6%	3	19%	5	31%	7	
Grand Total	19	14%	10	7%	62	45%	47	

percent to 39 percent, a property management firm made an apartment house available to mental health clients. The local mental health department provides support to the clients living there. In another county 10 percentage points above the statewide average, the local mental health department teamed up with the Housing Committee established by the local mental health board, which has resulted in a great deal of outreach and collaboration with other county agencies and private entities.

Two counties that were above the statewide average report that their ability to provide financial assistance to clients to help them move into their apartments is an effective strategy. One county that was 15 percentage points above the statewide average has wraparound funds to purchase services for clients and to make loans for expenses. Another county that was 20 percentage points above the statewide average helps clients with their utility bills, if necessary.

Finally, two counties attribute their success to the client-driven philosophy. One county that is 15 percentage points above the statewide average indicates that its staff embrace the psychosocial rehabilitation philosophy and listen to clients' preferences. Another county, whose results increased by 26 percentage points from 10 percent at Wave 1 to 36 percent at Wave 3, reported that more clients wanted to live independently. This county increased housing resources by providing more programs and by increasing coordination with the local housing authority and with landlords. Moreover, staff became more willing to let clients take chances.

Table 7 on Page 22 also reports that 11 results for this outcome measure, 35 percent, were below the statewide average. Seven of those counties reported that the results were due to an unrepresentative sample or attrition between Wave 1 and Wave 3. For example, some counties indicated that their sample had a disproportionate number of clients living in dependent living situations, which provided results that were not valid for those counties' target populations. Other counties reported that a significant number of clients living independently at Wave 1 could not be located for the Wave 3 interview, which contributed to the below average result.

Five of the 11 counties that were below the statewide average described the barriers to achieving success. One of those counties stated that the acuity level of its clients is increasing, thus decreasing their ability to live independently. Two counties reported lack of affordable housing as a major barrier to success. These counties developed recommendations to increase the number of clients living independently, including developing a plan to increase clients' independent living skills and to increase the number of independent housing opportunities available. Another county has increased its case management staff and expects that implementation of the Rehabilitation Option will increase the staff's focus on meeting clients' expressed needs. A fifth county had a very innovative approach to identifying barriers for success and developing solutions. It convened consumer roundtable discussions in its three major cities to find out consumers' views on barriers to living independently and to solicit recommendations. These discussions produced numerous practicable solutions.

One of the counties below the statewide average indicated that its clients living independently desire supported housing services; consequently, their living situation could not be rated as independent. This response raises further conceptual concerns about this outcome measure. Not all clients want to live independently without some support or assistance. This outcome measure makes the blanket assumption that living independently is the best outcome for clients, an assumption with which some clients do not agree. Moreover, the wording of the survey instrument may have contributed to some confusion about when a client's living situation could be classified as independent.

Satisfied with Living Situation

Table 13 on Page 72 provides results for this outcome measure. Statewide, 80.6 percent of clients surveyed at Wave 1 were satisfied with their living situation. At Wave 3, this percentage increased to 83.3 percent, an increase that was statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 9 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 4, 44 percent, showed an increase from Wave 1 to Wave 3; and 2, 22 percent, were above the statewide average at Wave 1 or Wave 3. Five of those 9 counties described the strategies that contributed to their success. One county, in which clients' satisfaction with their living situation increased by 14 percentage points from 72 percent to 86 percent, reported that the increase resulted from more staff working to place clients, particularly homeless clients, and that staff had found less restrictive alternatives for clients. Two counties reported that increased satisfaction resulted from an increase in availability of transitional housing, subsidized housing, or other specialized housing programs. One of these counties was approximately 12 percentage points above the statewide average. In the other county, clients' satisfaction increased by 17 percentage points from 73 percent to 90 percent. Finally, two counties, whose client satisfaction increased approximately by 15 percentage points from 65 percent to 80 percent, attributed the increase to implementation of the Rehabilitation Option, which enabled case managers to serve clients in their homes.

Three results for this outcome measure were below the statewide average. One county reported that the result was due to sample attrition between Wave 1 and Wave 3. Another county indicated that the high cost of housing makes acquiring a good living situation frustrating for clients. To address the problem, that county is developing a comprehensive housing plan. The third county chose not to explain its results.

Domain: Financial Status

This outcome measure is based on the belief that persons with serious mental disabilities should have an adequate income.

Income above $700 per Month

Table 14 on Page 73 provides results for this outcome measure. Statewide, 33.5 percent of the clients surveyed at Wave 1 had an income above $700 per month. At Wave 3, this percentage increased slightly to 35.0 percent; however, the increase was not statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 9 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 1, 11 percent, showed an increase from Wave 1 to Wave 3; and 7, 78 percent, were above the statewide average at Wave 1 or Wave 3. Five of those 8 counties did not provide any explanation for their success. The three counties that did provide an explanation attributed the results to their client population being less disabled than that of other counties. Consequently, clients in those counties were more likely to have paid employment, which is required to produce an income above the level of disability benefits.

One county was below the statewide average. Its explanation of barriers to achieving success on this measure provides an example of how difficult providing clients with employment can be in some counties. This county has a very high unemployment rate, and its employment base is largely seasonal

agricultural jobs. Many clients use psychotropic medications that heighten their sensitivity to sunlight. Consequently, employment in agricultural jobs outdoors during hot summers is not feasible.

Domain: Engaging in Productive Daily Activity

These outcome measures are based on the belief that persons with serious mental disabilities should have the opportunity to engage in meaningful daily activities, e.g., employment, training, and education.

Engaged in Productive Daily Activity

Table 15 on Page 74 provides results for this outcome measure. Statewide, 48.2 percent of the clients surveyed at Wave 1 were engaged in productive daily activity. At Wave 3, this percentage increased slightly to 48.5 percent; however, this increase was not statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 22 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 3, 14 percent, showed an increase from Wave 1 to Wave 3; and 10, 45 percent, were above the statewide average. Two of the counties attributed their results to their client population being less disabled than that of other counties. Consequently, clients in those counties were more likely to be working, going to school, or engaging in other productive activities.

Seven counties that showed increases from Wave 1 to Wave 3 or were above the statewide average described the strategies that contributed to their success. The statewide average for this outcome measure at both Wave 1 and Wave 3 was 48 percent. These 7 counties were all in the 60 to 65 percent range, nearly 20 percentage points above the statewide average for this outcome measure. They all had multi-pronged strategies for ensuring that their clients were able to engage in productive daily activities. For example, two of the counties worked with Disabled Students Services Programs at their community colleges and one worked with the Adult Education program to provide supported education for clients. Two of the counties provide groups for building skills in daily living, socialization, and money management. One county provided opportunities for socialization by helping its consumers form a consumer self-help program and drop-in center, and one county provided socialization services through contract providers. Four of the counties place a major emphasis on vocational rehabilitation and volunteerism. In addition to cooperative agreements with Department of Rehabilitation District Offices or employment services offered by contract providers, these counties also provided consumers with special training in securing volunteer positions. Several of the counties also provide volunteer placement services. One rural and geographically isolated county assists consumers by using a county van to provide transportation to activities.

One county increased the percentage of clients engaged in productive daily activity by 16 percentage points from 21 percent at Wave 1 to 37 percent at Wave 3. It accomplished this outcome through a major restructuring of its service delivery system. It developed multi-disciplinary teams with a regional focus. Using this strategy, staff were able to provide clients with a greater range of services to increase functioning, which reduced the need for placement in treatment facilities. Switching to regional teams also increased staff's knowledge of local resources available to clients and improved rapport with other service providers and agencies.

Table 7 on Page 22 also reports that 2 counties, 9 percent, experienced a decrease from Wave 1 to Wave 3; and 7 results for this outcome measure, 32 percent, were below the statewide average. Of these 9 counties, 3 attribute the decrease to attrition between Wave 1 and Wave 3; and 3 counties chose not to explain their outcomes.

Two of the 3 counties that did explain the barriers to achieving success attributed the problem to staff resistance to the client-driven approach. One of the counties reported that clients did not get the support they needed in their living situations to do activities. This problem was compounded by staff who were resistant to assisting clients to participate in activities they desired. The mental health board, which identified this problem, recommended that staff become more receptive to clients' feedback and desired activities. However, the local mental health program did not indicate whether it would implement this recommendation. The other county indicated that competing priorities for resources contributed to its below average outcome on this measure. It also indicated that staff need retraining to have higher expectations for clients. To this end, the county is undergoing a paradigm shift to increase staff's expectations. It is also developing new programs to create more opportunities for community involvement.

The third county that explained barriers to achieving success attributed the problem to clients' being dropped from the day treatment program due to changes in the definition for medical necessity. To address this problem, the county is facilitating development of a client-run drop-in center to provide more sources of activity.

Working One or More Hours per Week

Table 16 on Page 75 provides results for this outcome measure. Statewide, 20.4 percent of the clients surveyed at Wave 1 were working one or more hours per week. At Wave 3, this percentage had increased to 23.9 percent, a statistically significant increase.

Use of Data by Counties

Table 7 on Page 22 reports that 20 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 2, 10 percent, showed an increase from Wave 1 to Wave 3; and 12, 60 percent, were above the statewide average at Wave 1 or Wave 3. One of those counties reported that its results were due to an unrepresentative sample. The clients in the sample were from a higher socio-economic bracket than its target population. Another county explained that its clients were less disabled than those of other counties, which enabled them to have paid employment. Six of these counties chose not to explain their results.

Six counties that showed increases from Wave 1 to Wave 3 or were above the statewide average described the strategies that contributed to their success. Four of the counties credited their success to placing a major emphasis on vocational rehabilitation in their adult systems of care. This emphasis is manifested by making work readiness and placing clients in jobs or vocational programs a major focus of case management staff. These counties also tend to have cooperative agreements with Department of Rehabilitation District Offices. One of these counties increased the percentage of clients working one or more hours per week by nearly 20 percentage points from 23 percent to 42 percent. One rural county with a high unemployment rate was able to have an above average outcome by hiring a job developer who was able to place clients in paid employment. One county that increased its percentage of clients working one or more hours per week by nearly 20 percentage points from 13 percent to 32 percent did so by increasing its case management staff and other treatment program staff, which in turn increased referrals to the Department of Rehabilitation and sheltered workshops.

Table 7 on Page 22 also reports that 6 results for this outcome measure, 30 percent, were below the statewide average. Four of these counties described barriers to achieving success. They are all rural, agricultural counties with unemployment rates ranging from 11 to 25 percent. They attribute their difficulties on this outcome measure to problems with the local economy.

Domain: Avoiding Legal Problems

These outcome measures are based on the following values:

- Clients should be assisted in their efforts to maintain socially responsible behavior.
- Persons with serious mental disabilities have a right to personal safety and freedom from exploitation.

Not Arrested in the Last Six Months

Table 17 on Page 76 provides results for this outcome measure. Statewide, 97.8 percent of the clients surveyed at Wave 1 were not arrested in the six months preceding the survey. At Wave 3, this percentage decreased slightly to 97.6 percent; however, this decrease was not statistically significant. Because counties had very little variance on this outcome measure, no results met both the tests for statistical significance and meaningful differences.

Not a Crime Victim in the Last Six Months

Table 18 on Page 77 provides results for this outcome measure. Statewide, 88.0 percent of the clients surveyed at Wave 1 were not a crime victim in the six months preceding the survey. At Wave 3, this percentage increased to 90.3 percent, a statistically significant increase. Because counties had very little variance on this outcome measure, no results met both the tests for statistical significance and meaningful differences.

Domain: Physical Health

These outcome measures are based on the belief that all persons with serious mental disabilities should be afforded adequate health care services.

Received Physical Health Care from a Nurse or Physician in the Last Two Years

Table 19 on Page 78 provides results for this outcome measure. Statewide, 85.4 percent of the clients surveyed at Wave 1 received physical health care from a nurse or physician in the two years preceding the survey. At Wave 3, the percentage increased slightly to 85.6 percent, an increase that was not statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that five results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, one county experienced an increase of 11 percentage points from 80 percent at Wave 1 to 91 percent at Wave 3. This county reported that it established a multi-agency task force that researched availability of health care for indigent persons. The county emphasized providing on-going medical care for clients.

Of the four counties that were below the statewide average at Wave 1 or Wave 3, two chose not to provide an explanation for their results. One of the counties that did explain the barriers to achieving success attributed its difficulty to reductions in health care services in the county. One of the mental health boards did an excellent job of supplementary data analysis to determine the cause of its problems with health care. It determined that the sample included a high number of monolingual Southeast Asians who have difficulty accessing services. In addition, the mental health board determined that clients in dependent living situations were also not getting assistance they needed to access health care services. The mental health board recommended that case management staff focus more on those clients least able to care for themselves.

Received Dental Care in the Last Two Years

Table 20 on Page 79 provides results for this outcome measure. Statewide, 61.1 percent of the clients surveyed at Wave 1 received dental care in the two years preceding the survey. At Wave 3, this percentage increased to 66.6 percent, an increase that was statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 7 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 2, 29 percent, showed an increase from Wave 1 to Wave 3; and 4, 57 percent, were above the statewide average at Wave 1 or Wave 3. Of those 6, 4 counties chose not to explain their results. The county whose results increased by 20 percentage points from 46 percent at Wave 1 to 66 percent at Wave 3 attributes its success to increased access for clients to Medi-Cal dental benefits. The other county, which was above the statewide average, explained that as a rural area it is designated as a "frontier" by the federal government. Dentists needing to work in underserved areas increase the supply of practitioners who accept Medi-Cal, thus increasing access for mental health clients.

Domain: Social Support Network

These outcome measures are based on the belief that persons with serious mental disabilities should have the opportunity to develop and maintain a social support system and a meaningful relationship with the community.

Using Social Support Network for Material Help

Table 21 on Page 80 provides the results for this outcome measure. Statewide, 70.1 percent of the clients surveyed at Wave 1 were using their social support networks for material help. At Wave 3, however, this percentage had decreased to 67.8 percent, a decrease that was statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 19 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 1, 5 percent, showed an increase between Wave 1 and Wave 3, and 6, 32 percent, were above the statewide average at Wave 1 or Wave 3. Six counties provided their strategies for success on this outcome measure. One county's percentage of clients using their social support network for material help increased by 18 percentage points from 36 percent to 54 percent. This county attributed the increase to its day treatment program, which provided services to most of the clients in its sample. This program tries to promote clients' independence as their progress in treatment dictates.

Two of the local mental health programs, which were approximately 20 percentage points above the statewide average, report that their clients have access to a number of consumer-run self-help programs, thus reducing the need to rely on mental health staff for assistance. One of those programs also indicated that friendships developed among clients in residential treatment programs tend to continue once the clients are living in the community. Thus, clients can turn to each other for assistance. Another county, which was 18 percentage points above the statewide average, believes that it simply has more alternatives for support and assistance than other counties have. A rural county, which was 14 percentage points above the statewide average, attributed its success to creative staff who are able to do a great deal with limited resources. Finally, another rural county attributed its success to the close-knit, family-oriented nature of its community.

Five counties, 26 percent, experienced a decrease from Wave 1 to Wave 3 for this outcome measure; and 7 counties, 37 percent, were below the statewide average. Two of the counties that were below the

statewide average explained that their results were due to the unrepresentative nature of their samples. In one county, 88 percent of the sample was from the day treatment program. These clients would have a greater likelihood of relying on the assistance of mental health staff. In the other county, clients in dependent living situations were overrepresented in the sample. Four counties chose not to explain their results.

Five of the 12 counties that either experienced a decrease from Wave 1 to Wave 3 or were below the statewide average explained the barriers to achieving success. One county explained that teaching clients to use natural supports was not a main thrust of its mental health services. Two counties reported that funding problems inhibited their ability to help clients develop natural supports. Two other counties indicated that lack of public transportation is a significant impediment to using natural supports. One county attributed its lack of success to the Clinic Option for providing Medi-Cal services. It stated that this option did not emphasize developing a client's natural support system. With full implementation of the Rehabilitation Option, this county expects to increase its emphasis on developing natural supports for clients. In addition, it plans to increase collaboration with the Parks and Recreation Department so clients have more activities that might lead to increased support systems.

Some counties' explanations highlight conceptual problems with this outcome measure. The intention of this domain was to assess the extent of a client's support system. The CMHPC was restricted, however, to the limited analysis that the DMH did with the data set from the Adult Performance Outcome Survey. The only outcome measure that could be extracted from the data set was use of non-mental health staff for assistance with material tasks, such as transportation and shopping. One county pointed out that consumers do not want to rely on friends and family for assistance with these kinds of tasks, which directly rebuts the assumption underlying this outcome measure that using natural supports is preferable to using mental health staff. Another county indicated that it encourages clients to rely on mental health staff and not families for this kind of assistance. These comments lead to the conclusion that this outcome measure does not really measure the nature of a client's natural supports. Clients may have adequate natural support systems but prefer to obtain assistance for material tasks from mental health staff.

Doing Activities with Friends

Table 22 on Page 81 provides results for this outcome measure. Statewide, 81.7 percent of the clients surveyed at Wave 1 were doing activities with friends. At Wave 3, this percentage had decreased to 79.9 percent, a decrease that was statistically significant.

Use of Data by Counties

Table 7 on Page 22 reports that 16 results for this outcome measure met the tests for statistical significance and meaningful difference. Of those, 1, 6 percent, showed an increase from Wave 1 to Wave 3; and 5, 31 percent, were above the statewide average at Wave 1 or Wave 3. One of those counties attributed its results to an unrepresentative sample. Its sample overrepresented clients who were higher functioning than its target population. One county chose not to explain its results.

Three counties that were above the statewide average between 10 and 20 percentage points attributed their success to two factors: the nature of their treatment system and the nature of their communities. Two of these counties reported that their treatment system has always regarded promoting activities with friends as a very important aspect of their services. Additionally, two types of programs in those counties, day treatment and satellite housing, promote development of friendships. One of the counties provides transportation to activities, which encourages doing activities with friends. The other

significant factor is the nature of the communities in these counties. They are small communities that foster a greater sense of fellowship than is possible in large urban areas.

One county, which had an increase of 13 percentage points from 75 percent at Wave 1 to 88 percent at Wave 3, attributed its success to increased funding from the United Way. The county used these funds to develop a consumer self-help program that increased opportunities for doing activities with friends. This county also believes that implementation of the Rehabilitation Option and its supported housing program promoted development of friendships.

Three counties, 19 percent, experienced a decrease from Wave 1 to Wave 3 for this outcome measure; and 7 counties, 44 percent, were below the statewide average. One of these counties reported that the decrease was an artifact of attrition between Wave 1 and Wave 3. Four counties chose not to explain their results.

Five counties explained the barriers to achieving success. Four of those counties are large urban areas. In addition to having insufficient resources in their mental health system to emphasize services that promote friendships, all of these counties cited problems typical of major cities:

- lack of adequate public transportation;
- clients' fear of crime; and
- insufficient income for clients to afford doing activities.

One other county indicated that it had intentionally decreased its emphasis on recreational services based on consumers expressed priorities for how limited mental health resources should be spent.

Recommendations for Improving Adult Systems of Care Made by Local Mental Health Programs

Mental Health Services

Table 8 on Page 31 summarizes the CMHPC's analysis of how counties used performance outcome data to assess gaps in their services systems and develop recommendations for improvement. Two of the counties, 4 percent, concluded that no improvement was needed because their results were at or above the statewide average for all outcome measures. Nine counties, 17 percent, indicated that their analysis of performance outcome data confirmed the need for change or for improvements already underway. Five counties, 9 percent, did not answer the question because they considered their data invalid.

Fourteen counties, 26 percent, identified gaps in their services systems and made recommendations to provide those services. Two aspects of the service system received the most attention: housing and vocational rehabilitation. Ten of these counties identified lack of affordable housing or an incomplete array of supported housing services as a problem and developed recommendations. Four of these counties developed strategies for increasing vocational rehabilitation services for clients. Two or three counties each developed recommendations to improve the following aspects of the service systems:

- transportation;
- consumer self-help programs;
- productive daily activity;

- medical care; and
- client satisfaction.

Table 8: Use of Performance Outcome Data To Improve the Adult System of Care

Type of Use	Number of Counties	Percent of Counties
Analyzed results. No improvement needed because the county is at or above the statewide average.	2	3.7%
Analyzed results. Identified gaps in the service system or need to improve existing services.	14	25.9%
Analyzed results. Developed recommendations for improving the service system.	14	25.9%
Analyzed results. Data confirmed the need for changes or improvements already underway.	9	16.7%
No conclusions reached because the county did not consider the data valid.	5	9.3%
No answer.	10	18.5%
Grand Total	54	100.0%

Another 14 counties, 26 percent, identified gaps in their service system; however, these counties did not develop recommendations for filling those gaps. These counties identified the following types of services that their clients need:

- low-income housing and supported housing;
- vocational rehabilitation;
- consumer self-help programs;
- social and recreational activities;
- dual diagnosis services; and
- transportation.

Interagency Relationships

Sixteen counties, 30 percent, concluded from their performance outcome data that they needed to strengthen interagency relationships with one or more of the following agencies:

- law enforcement;
- drug and alcohol programs;
- housing authorities;
- health services;
- social services;
- vocational rehabilitation;
- veteran's services;
- parks and recreation; and
- community colleges.

Conclusions about the Performance of the State's Adult System of Care

The CMHPC acknowledges that limitations with this study discussed in Chapter 3 prevent generalizing about these results to the State's mental health system for serving the adult target population. However, these results are valid for the nearly 3,300 clients surveyed. By virtue of meeting the sampling criteria, these clients are frequent users of mental health services. Because they could be located by mental health staff at Wave 3, twelve months after the initial survey, they appear to be long-term users of the system. Nearly half of the sample are persons with schizophrenia, one of the most challenging mental illnesses to treat successfully. Consequently, the mental health system can learn valuable lessons from this study about the quality of life it provides to this group of clients.

Table 9 summarizes the statewide averages at Wave 1 and Wave 3 for the outcome measures. In the areas of shelter and safety, the State's mental health system seems to be serving these clients well. Over 80 percent of them are satisfied with their living situation. These clients have very limited involvement with the criminal justice system. Nearly 98 percent did not report being arrested in the six months preceding the survey. Approximately 90 percent reported that they had not been victimized by crime in the six months preceding the survey.

Table 9: Statewide Averages for Performance Outcome Measures

	Percent Meeting Criteria		Statistical Significance of Change Between Wave 1 and Wave 3
Outcome Measure	**Wave 1**	**Wave 3**	
Living in a House or Apartment without Supervision	38.2	39.1	ns
Satisfaction with Living Situation	80.6	83.3	(increase) <.01
Income above $700 per Month	33.5	35.0	ns
Engaged in Productive Daily Activity	48.2	48.5	ns
Working One or More Hours per Week	20.4	23.9	(increase) <.01
Not Arrested in the Last Six Months	97.8	97.6	ns
Not a Crime Victim in the Last Six Months	88.0	90.3	(increase) <.01
Received Physical Health Care in the Last Six Months	85.4	85.6	ns
Received Dental Care in the Last Six Months	61.1	66.6	(increase) <.01
Used Social Support Network for Material Help	70.1	67.8	(decrease) .05
Doing Activities with Friends	81.7	79.9	(decrease) <.05

The mental health system seems to be performing satisfactorily for these clients in the social support domain. Approximately 70 percent of clients had friends or family to call on for assistance with material tasks, such as transportation and shopping. Approximately 80 percent of clients reported doing activities with friends, which is an important component of quality of life. One caution for the system, however, is that results for both these outcome measures had slight decreases, which were statistically significant. Some counties reported that services that enhance this domain tend to be de-emphasized when resources are restricted. In such cases, counties need to explore cost-effective options, such as consumer self-help programs, to help fill gaps in the service system.

Accessing health care for these clients presents a mixed picture. Over 85 percent had received physical health care in the two years preceding the survey. Since these data were collected in fiscal year 1993-94, the Department of Health Services has implemented a variety of managed care approaches to

providing health services funded by Medi-Cal. Given the concern expressed in the process to implement managed mental health care about the interface between primary care and specialty mental health services, the mental health system needs to continue to pay attention to this aspect of brokering services for clients. These clients also need more access to dental care. Approximately 67 percent of clients at Wave 3 had seen a dentist in the two years preceding the survey, which represented an increase from Wave 1. However, this aspect of personal care has been seriously neglected for many clients due largely to lack of access to services. The mental health system needs to focus on increasing access to this service.

Approximately two-thirds of these clients had incomes under $700 per month, which severely affects anyone's quality of life. Efforts to increase clients' income will have to proceed on two fronts. The mental health system must put a much higher priority on supported and full employment for these clients. Less than 25 percent were working one or more hours per week. This study demonstrates that counties who have made this aspect of their service system a priority have improved the percentage of clients working. External barriers, such as high unemployment and local economies with jobs not well suited for persons with mental disabilities, are difficult to overcome. However, even some counties with high unemployment rates have made strides through concerted effort. For those clients unable to obtain paid employment, the mental health constituency must also continue its efforts to ensure access to SSI/SSP and other forms of income support and to advocate for benefit levels that provide at least a minimal standard of living for mental health clients.

The mental health system also needs to concentrate on providing other avenues for productive daily activity for clients in the sample. Less than half the clients in this study reported engaging in productive daily activity. Some counties had good results on this outcome measure because they used a variety of strategies to provide clients with opportunities for daily activity, including supported employment, volunteer training and placement, and consumer self-help programs.

CHAPTER 5

IMPROVING COLLECTION AND INTERPRETATION OF PERFORMANCE OUTCOME DATA

Plans To Improve the Process for Collecting Performance Outcome Data

The mental health system learned a great deal from this first attempt to collect performance outcome data. Problems were identified with sampling, the data collection instrument, and the analysis and reporting of the results.

The DMH provided each county with a list of clients meeting the sampling criteria. These clients were randomly selected from the county's Client Data System. If a county had not kept its Client Data System up to date, the random sample tended to include clients whose cases had been closed. Finding these clients was more time consuming than finding clients currently being served in the system.

The data collection instrument, the Adult Performance Outcome Survey, also posed problems. Because this instrument was designed for this study, it produced data that could not be compared with any other data collected on persons with serious mental illnesses. Data analysis was also problematic. Data were collected locally, but they were sent to the Department of Mental Health for analysis. The DMH calculated the results and reported them to the counties; however, this effort took many months. Consequently, clinicians and clients in the sample invested substantial time without a clear benefit. This information was not used to diagnose a client nor was it used to develop a client's treatment program.

To remedy these problems, the CMHDA, the DMH, and the CMHPC developed a set of principles to guide any future efforts to collect performance outcome data:

- Outcome measures should be based on the California system of care model and philosophy.
- The data must be of maximum value to all stakeholders:
  - clients;
  - clinicians;
  - administrators and managers; and
  - policymakers.
- Data collection should promote efficiency and effectiveness by using a streamlined, comprehensive approach that eliminates duplication, maximizes revenue potential, and minimizes service disruption.
- The data must be collected using standardized instruments, when possible, to increase comparability.
- Outcome measures should acknowledge the diversity of California's counties with respect to culture, system, and services to allow for adaptation to local needs.
- Outcome data should be reported in a clear and understandable format on a regular basis.

These principles have been operationalized in the project to collect performance outcome data for children and youth and in the pilot project for collecting data for adults and older adults. The Children and Youth Project is based on the evaluation paradigm established to evaluate the effectiveness of

children's systems of care developed pursuant to AB 3015. By early 1998, all counties are expected to have implemented this data collection procedure. Counties are required to use the following five instruments:

- Child and Adolescent Functional Assessment Scale;
- Child Behavior Checklist;
- Client Living Environments Profile;
- Youth Self-Report; and
- Client Satisfaction Questionnaire.

Data must be collected on all children and youth who are going to be in treatment longer than 60 days. After the initial assessment, data will be collected again annually or upon the client's discharge. The goal of this new system is to produce data that can be used for diagnosis, treatment planning, and system accountability. Data will be available on all long-term clients in the mental health system.

The procedures for collecting performance outcome data for adults are still being developed. Nine counties are participating in a pilot test of the following instruments:

- Axis V Subscales for the DSM-IV;
- Global Assessment of Functioning;
- Health Status Profile--SF 36 and SF 12;
- Behavior and Symptom Identification Scale;
- Quality of Life Interview;
- Behavioral Healthcare Rating of Satisfaction; and
- Client Satisfaction Questionnaire.

The pilot project will be concluded in late 1997. The same requirements for collecting data on children and youth will be in place for adults. Clients receiving services for more than 60 days must be assessed. These instruments will be administered again annually or upon discharge.

A system is also planned to be developed for older adults. However, this target population presents different challenges in selecting instruments. Physical limitations of the frail elderly, such as vision problems, limited attention span, and fatigue, mean that instruments appropriate for adults may not necessarily be appropriate for older adults. A separate pilot project is underway to identify instruments that can be used for older adults.

Once the new systems for collecting outcome data for all the target populations are fully implemented, the mental health system must turn its attention to evaluating outcomes in relation to the severity of clients' mental illnesses; the profile of care provided, e.g. hospital stays, outpatient care, and medication management; and the cost effectiveness of that care.

Conceptual Problems with the Performance Outcome Measures

The CMHPC has the responsibility in statute to approve the performance outcome measures developed for oversight and accountability of the realigned mental health system. Changes in the instruments used to collect data for the adult target population present the opportunity to refine outcome measures based on the data available in the new instruments and conceptual problems identified in this study.

Domain: Living Situation

Living in a House or Apartment without Supervision

Living without supervision is not the only type of living situation that clients desire. This measure needs to be crafted so that it reports on the degree to which clients are living in the type of setting they choose.

Satisfied with Living Situation

These data need to be reported by type of living situation. The current measure aggregated satisfaction with all living situations from independent living and board and care homes to IMDs.

Domain: Financial

Income above $700 per Month

To reach this income level requires employment or employment and SSI/SSP benefits. Factual information about clients' income level needs to be reported. In addition, the source of income is important. One important aspect of a county's performance is helping clients obtain any public assistance to which they are entitled. Because this outcome measure required both SSI/SSP income and employment income, it was not possible to determine how many clients were receiving SSI/SSP or some other form of income assistance. A clear measure of counties' efforts at benefits advocacy needs to be developed.

Domain: Engaging in Productive Daily Activity

Engaged in Productive Daily Activity

This outcome measure groups too many activities under one heading. It includes work, education, and volunteer activities. Another outcome measure already provides information on employment. This measure should be eliminated and replaced with one that measures educational activity and one that measures volunteer work.

Domain: Social Support Network

Using Social Support Network for Material Help

A more direct measure needs to be found that gauges the extent of a client's social support network. This measure assumes that, if clients have a good network of natural supports, they will not rely on mental health staff for assistance. Answers in the workbook indicate that this assumption is invalid. Clients may simply prefer not to rely on friends and family when they can instead request assistance from mental health staff.

Assessment of the Usefulness of the Workbook and Recommendations for Improving It

Table 10 on Page 39 summarizes comments made by local mental health programs about the workbook provided to assist in interpreting the performance outcome data. Almost 60 percent of the counties responding made favorable comments with over 40 percent of those counties indicating that the workbook was useful and had clear instructions. Based on these comments, the CMHPC plans to continue to use this type of workbook to aid counties in interpreting performance outcome data collected in the future.

The workbook will be modified, however, to take into account improvements suggested by local mental health programs. These improvements are also summarized in Table 10. Over 60 percent of the counties provided suggestions with nearly 40 percent requesting fewer questions and less duplication. The CMHPC had designed the workbook to have the maximum number of questions that local mental health programs might find useful. Counties were instructed to use those questions that were helpful and ignore those that were not relevant. However, most users felt compelled to answer a question when it was asked. Based on the experience of the CMHPC staff in analyzing the workbooks, the CMHPC has identified which types of questions yield the most useful information. Future editions of the workbook will be simplified.

In addition to reducing the number of questions, the organization of the workbook needs to be modified. Questions were provided for each of the six domains. All but one domain has two outcome measures. Because of this structure, some local mental health programs only focused on one of the two outcome measures or blended their answers to a degree that necessary information could not be extracted for a particular outcome measure. In addition, questions about domains only related to analyzing characteristics of the county or aspects of the service system that might explain the results. A section later in the workbook asked about recommendations to improve the adult system of care. Asking a question for each outcome measure about recommendations to improve performance would be a clearer way to elicit this information.

Table 10: Comments on the Workbook Made by Local Mental Health Programs

Comments on Workbooks	Number of Responses	Percent of Counties Responding
Positive Comments		
Workbook was clear with step-by-step instructions.	10	18.5%
Workbook helped MHB/C members understand the mental health system and role of MHB/C.	8	14.8%
Workbook was useful.	4	7.4%
MHB/C will use the workbook in its annual report to the governing body.	3	5.6%
Workbook was useful in promoting a dialogue between MHB/C and mental health department staff.	3	5.6%
Appendices with statewide statistical information were helpful.	2	3.7%
Graphs of outcome data were helpful.	2	3.7%
Subtotal	32	59.3%
Suggestions for Improvement		
Eliminate duplication in questions.	12	22.2%
Workbook had too many questions and was too long and time consuming.	9	16.7%
Make the workbook more readable and understandable by using layman's terms.	7	13.0%
Modify the workbook for small counties, which are unique.	2	3.7%
Send out all relevant material along with the workbook; e.g., computer disk and statistical significance of results.	2	3.7%
Include regional data so counties can compare themselves with other counties in the region.	2	3.7%
Subtotal	34	63.0%
No answer	20	37.0%
Grand Total	86	
Number of Counties Responding	54	

APPENDIX 1: Adults Target Population -- Client Outcome Measures

TARGET POPULATION ADULTS
CLIENT OUTCOME MEASURES

A. LIVING SITUATION

VALUE: Persons with mental disabilities have the right to choice, privacy, and independence in their living situation.

VALUE: Persons with serious mental disabilities should receive treatment and rehabilitation in the most appropriate and least restrictive environment, preferably in their own community.

OUTCOME MEASURES

1. Percentage of individuals receiving service (referred to as individuals) living independently who do not require supervision to maintain their living situation.
2. Percentage of individuals receiving service who become more independent in their living situations from admission to survey administration, repeat surveys and discharge.
3. Percentage of individuals who are in or who achieved their desired living situation within six months.
4. Percentage of individuals who made progress towards their desired living situation within six months.
5. Percentage of individuals whose satisfaction with their living situations has increased over time or who are somewhat to very satisfied with their living situations.
6. Percentage of individuals who were homeless at some time during the last six months and are now in a living situation of their choice.
7. Percentage of individuals who were homeless and are not homeless six months later.
8. Percentage of individuals who have not moved or who have moved less in the most recent six months than in prior period.

B. FINANCIAL

VALUE: Persons with serious mental disabilities should have an adequate income.

OUTCOME MEASURES

1. Percentage of individuals whose income has been maintained or increased to at or above the poverty level.
2. Percentage of individuals who are work-force eligible.
3. Percentage of work-force eligible who are working.
4. Percentage of individuals whose income has increased over the past six months.
5. Percentage of work-force eligible individuals whose income sources include income from employment.
6. Percentage of work-force eligible individuals able to work whose income sources include income from employment.

7. Percentage of individuals with very low income who are on entitlement income programs six months later.

C. PRODUCTIVE DAILY ACTIVITIES

VALUE: Persons with serious mental disabilities should have the opportunity to engage in meaningful daily activities (e.g., employment, training, education, etc).

OUTCOME MEASURES

Indicators in this area need to be interpreted in conjunction with question 17, that is, the role of this person in the labor market.

1. Percentage of individuals involved in any type of productive daily activity, including paid jobs, volunteer jobs, and educational activities.
2. Percentage of individuals who are working if they want to work.
3. Percentage of individuals who have maintained or increased their paid working hours according to their desires over the last six months.
4. Percentage of individuals who have maintained or increased their paid hours and/or volunteer hours over the last six months.
5. Percentage of individuals who move from educational, volunteer, or training programs to employment over time.
6. Percentage of individuals who are unemployed who move to employment over time.

D. AVOIDING LEGAL PROBLEMS

VALUE: Clients should be assisted in their efforts to maintain socially responsible behavior.

VALUE: Persons with serious mental disabilities have a right to personal safety and freedom from exploitation.

OUTCOME MEASURES

1. Percentage of individuals who were not arrested or whose number of arrests have decreased over the last six months.
2. Percentage of individuals who were not the victim of a crime.

E. AVOIDING SUBSTANCE ABUSE

VALUE: Persons with serious mental disabilities should have the opportunity to live life free of substance abuse and addiction.

OUTCOME MEASURES

1. Percentage of individuals negatively affected by substance abuse who are involved in therapeutic activities addressing the substance abuse.
2. Percentage of individuals negatively affected by substance abuse for whom substance abuse treatment is in the service plan.
3. Percentage of individuals for whom the negative affects of substance abuse have decreased over the last six months.

F. INVOLVEMENT OF CLIENT AND FAMILY IN SERVICE PLANS

VALUE: Mental health services shall be "client directed" where services start with the client, employ client choice, engage the client to identify personal goals, and assist in removing obstacles to achieving them.

VALUE: Whenever possible, the family and/or significant others should be involved in the planning and revision of services within the limits of the client's desired confidentiality.

VALUE: Persons with serious mental disabilities should be integral in the planning, direction, and administration of services, including medication management.

OUTCOME MEASURES

1. Percentage of individuals who participated in any part of the planning process.
2. Percentage of individuals who participated in all parts of the planning process.
3. Percentage of individuals who maintained or increased their level of participation in the planning process.
4. Percentage of clients whose families participated in developing the service plan.
5. Percentage of clients whose families maintained or increased their participation in the service plan process.

G. PHYSICAL HEALTH

VALUE: All persons with serious mental disabilities should be afforded adequate health care services.

OUTCOME MEASURES

1. Percentage of individuals who have contact with
    a. their physical health care contacts.
    b. their dental checkups.
    c. their vision checkups.
2. Percentage of individuals who maintained and/or increased
    a. their physical health care contacts.
    b. their dental checkups.
    c. their vision checkups.

H. SOCIAL SUPPORT NETWORK

VALUE: Persons with serious mental disabilities should have the opportunity to develop and maintain a social support system and a meaningful relationship with the community.

OUTCOME MEASURES

1. Percentage of individuals who have someone to contact other than a mental health staff member when they need help.
2. Percentage of individuals who maintained and/or increased the number of people they can call for help or support when they need it.
3. Percentage of individuals who have someone to do things with for fun.

4. Percentage of individuals who maintained and/or increased the range of people who they do things with for fun.
5. Percentage of individuals involved in community activities.
6. Percentage of individuals who maintained or increased the range of community activities over time.

I. UNIQUE NEEDS

VALUE: Service provided to persons with serious mental disabilities must address the unique needs of the client (i.e., ethnically, multiple disorders, children, elderly, etc.)

OUTCOME MEASURES

1. Percentage of individuals in each race/ethnic group compared to the general population percentage.
2. Percentage of individuals in each age group compared to the general population percentage.
3. Percentage of individuals with dual diagnoses and change over time.

APPENDIX 2: Sample Sizes for Each County for Wave 1 and Wave 3

APPENDIX 3: Data Collection Instrument-- Mental Health Outcomes for Adults

APPENDIX 4: LIST OF COUNTIES IN CALIFORNIA BY REGION

BAY AREA

Alameda
Berkeley City
Contra Costa
Marin
Monterey
Napa
San Benito
San Francisco
San Mateo
Santa Clara
Santa Cruz
Solano
Sonoma

CENTRAL

Alpine
Amador
Calaveras
El Dorado
Fresno
Kings
Madera
Mariposa
Merced
Mono
Placer
Sacramento
San Joaquin
Stanislaus
Sutter-Yuba
Tulare
Tuolumne
Yolo

SOUTHERN

Kern
Imperial
Orange
Riverside
San Bernardino
San Diego
San Luis Obispo
Santa Barbara
Tri-City
Ventura

LOS ANGELES

SUPERIOR

Butte
Colusa
Del Norte
Glenn
Humboldt
Inyo
Modoc
Lake
Lassen
Mendocino
Nevada
Plumas
Shasta
Sierra
Siskiyou
Tehama
Trinity

APPENDIX 5: Unduplicated Adult Clients Served and the Population Selected for the Performance Outcome Survey

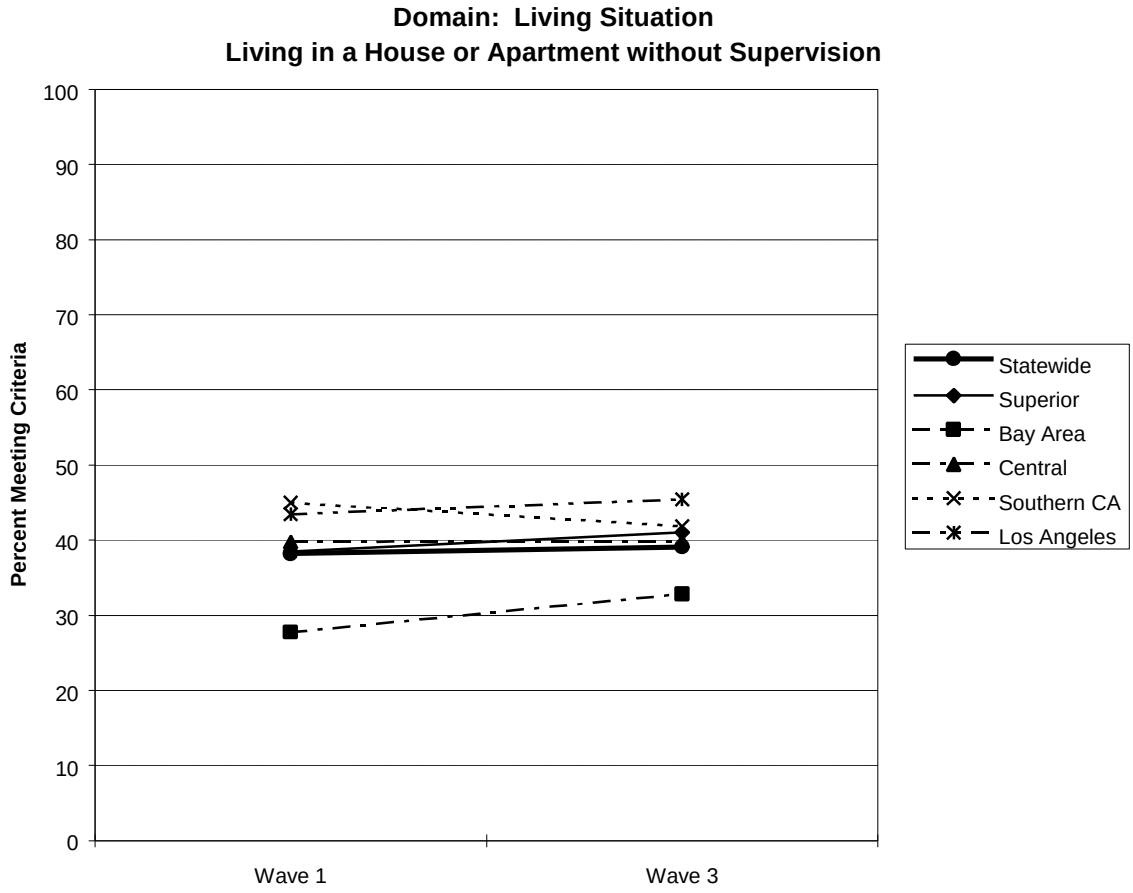
Table 11: Unduplicated Adult Clients Served and the Population Selected for the Performance Outcome Survey

Unduplicated Adult Clients Served and the Sample Selected for the Performance Outcome Survey Fiscal Year 1992-93								
	Total CDS Adult Population		**Target CDS Adult Population**		**Target Survey Population**		**Survey Wave 1 Population**	
TOTAL	263,398	100.0%	207,115	100.0%	32,997	100.0%	4,038	100.0
GENDER								
F	128,453	48.8%	104,203	50.3%	16,953	51.4%	2,129	52.7
M	134,620	51.1%	102,677	49.6%	16,030	48.6%	1,906	47.2
U	325	0.1%	235	0.1%	14	0.0%	3	0.1
AGE GROUP								
18-24	32,853	12.5%	21,394	10.3%	2,419	7.3%	225	5.6
25-34	77,623	29.5%	58,867	28.4%	8,815	26.7%	985	24.4
35-44	75,557	28.7%	61,008	29.5%	10,746	32.6%	1,408	34.9
45-54	40,252	15.3%	33,961	16.4%	6,508	19.7%	840	20.8
55-64	20,081	7.6%	17,457	8.4%	3,160	9.6%	412	10.2
65-74	10,074	3.8%	8,677	4.2%	1,001	3.0%	127	3.1
75 +	6,958	2.6%	5,751	2.8%	348	1.1%	41	1.0
RACE/ETHNICITY								
WHITE	151,735	57.6%	121,209	58.5%	19,041	57.7%	2,803	69.4
HISPANIC	42,510	16.1%	31,317	15.1%	5,533	16.8%	531	13.2
BLACK	40,936	15.5%	32,654	15.8%	4,402	13.3%	301	7.5
ASIAN/PACIFIC	5,937	2.3%	4,893	2.4%	1,218	3.7%	96	2.4
AMERICAN INDIAN	1,947	0.7%	1,462	0.7%	211	0.6%	45	1.1
SE ASIAN	9,157	3.5%	6,489	3.1%	1,128	3.4%	119	2.9
FILIPINO	2,260	0.9%	1,796	0.9%	394	1.2%	38	0.9
OTHER	2,886	1.1%	2,368	1.1%	339	1.0%	43	1.1
UNKNOWN	6,030	2.3%	4,927	2.4%	731	2.2%	62	1.5

Source: Department of Mental Health, Client Data System

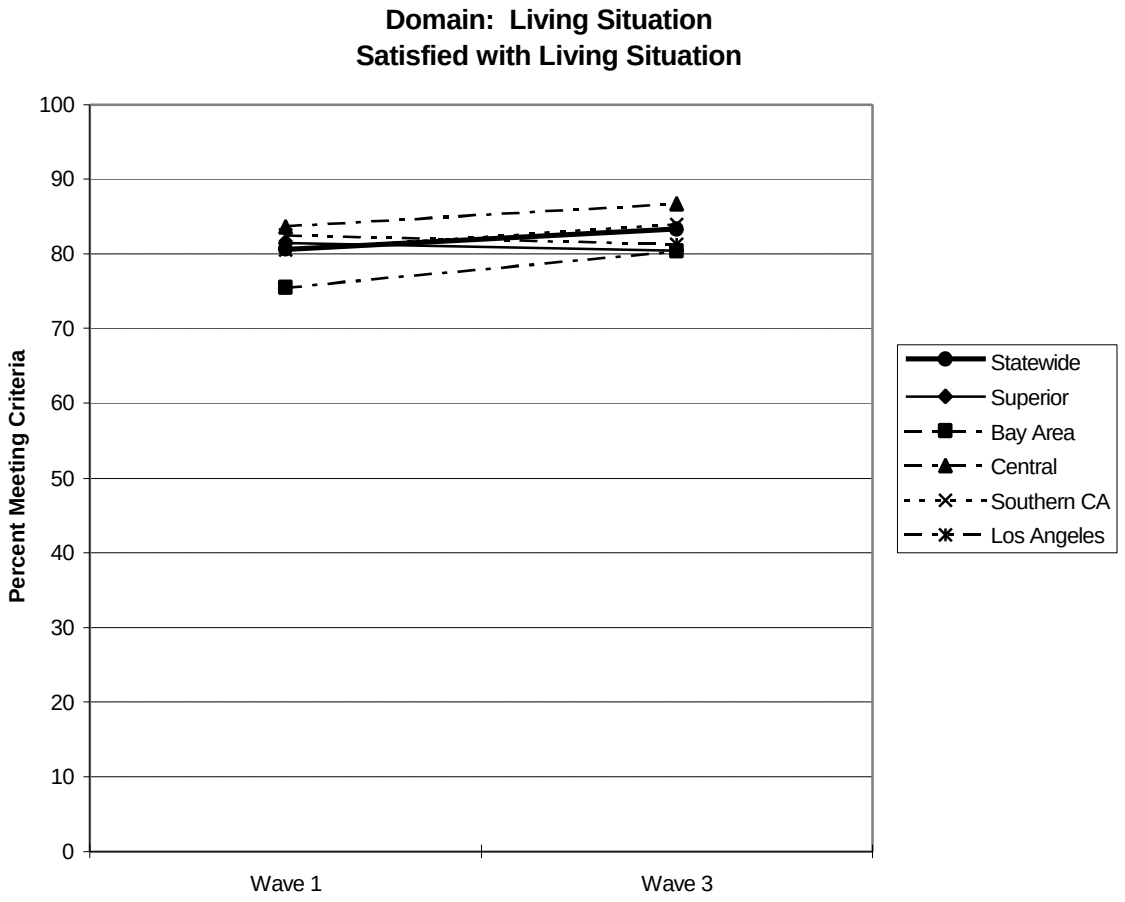
APPENDIX 6: RESULTS FOR EACH OUTCOME MEASURE--STATEWIDE AND BY REGION

Table 12: Living in House or Apartment without Supervision



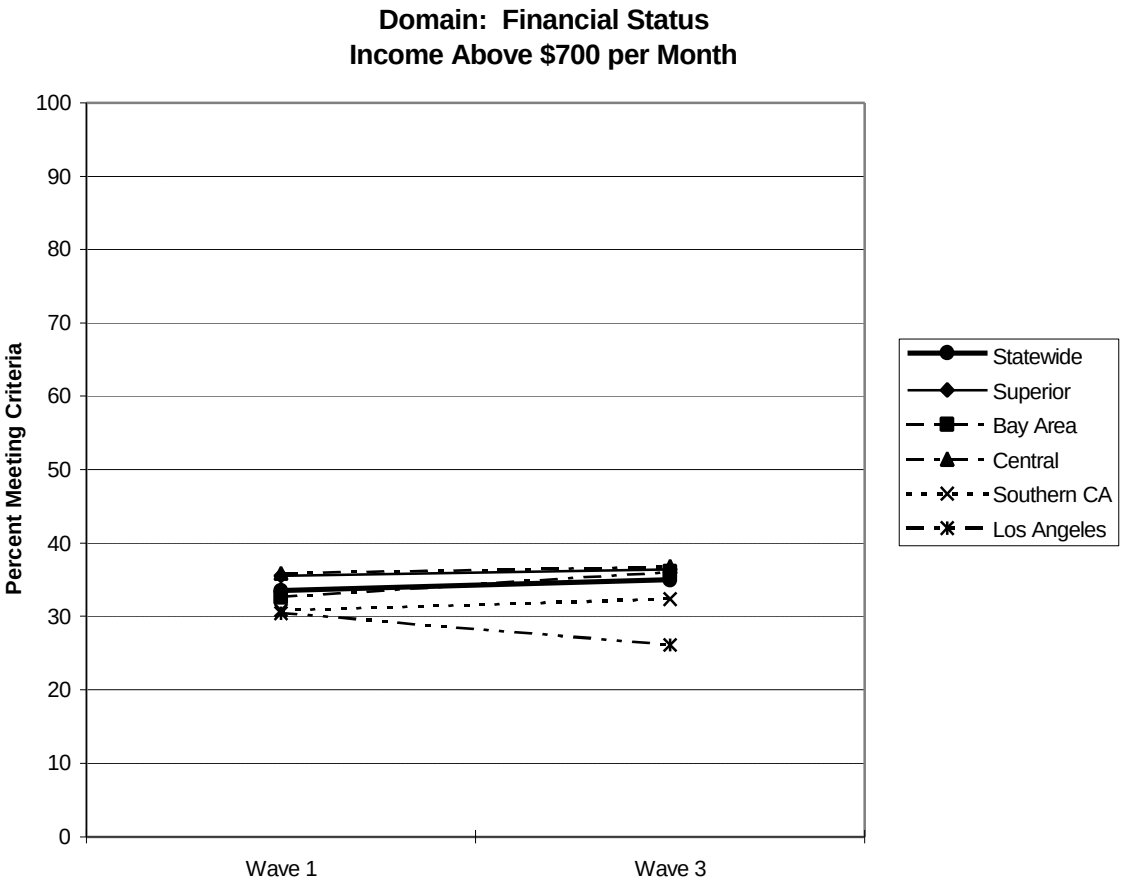
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**38.2**	**39.1**	ns		
Regions					
Superior	**38.5**	**41.0**	ns	ns	ns
Statewide Average without Region's Data	38.0	39.0			
Bay Area	**27.7**	**32.9**	(increase) <.01	(below) 0.001	(below) 0.001
Statewide Average without Region's Data	41.0	41.0			
Central	**39.8**	**39.9**	ns	ns	ns
Statewide Average without Region's Data	38.0	39.0			
Southern CA	**45.0**	**41.9**	ns	(above) 0.001	(above) 0.05
Statewide Average without Region's Data	36.0	38.0			
Los Angeles	**43.4**	**45.5**	ns	ns	ns
Statewide Average without Region's Data	38.0	39.0			

Table 13: Satisfied with Living Situation



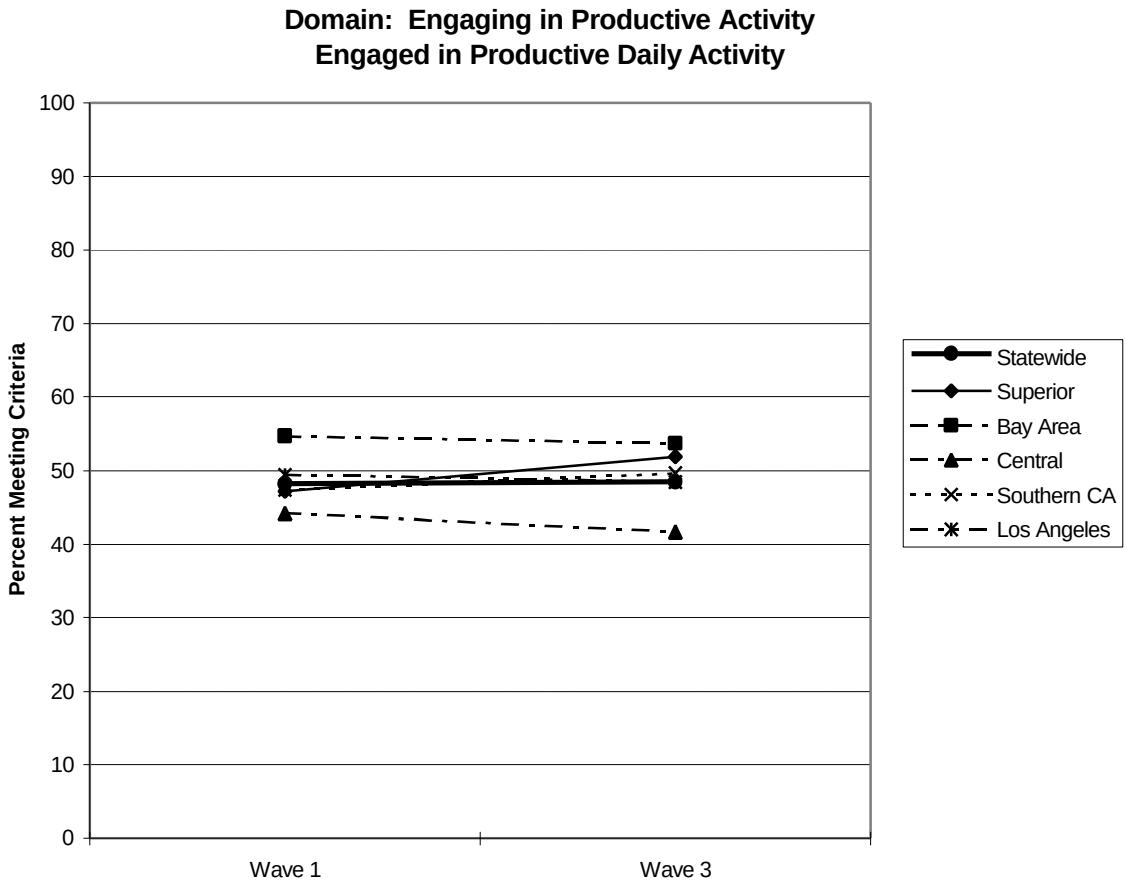
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	**Wave 3**		**Wave 1**	**Wave 3**
Statewide	**80.6**	**83.3**	(increase) <.01		
Regions					
Superior	**81.5**	**80.5**	ns	ns	ns
Statewide Average without Region's Data	80.0	84.0			
Bay Area	**75.5**	**80.4**	(increase) <.05	(below) .001	(below) .05
Statewide Average without Region's Data	82.0	84.0			
Central	**83.7**	**86.7**	ns	(above) .01	(above) .001
Statewide Average without Region's Data	79.0	82.0			
Southern CA	**80.6**	**84.0**	ns	ns	ns
Statewide Average without Region's Data	81.0	83.0			
Los Angeles	**82.5**	**81.3**	ns	ns	ns
Statewide Average without Region's Data	81.0	83.0			

Table 14: Income Above $700 per Month



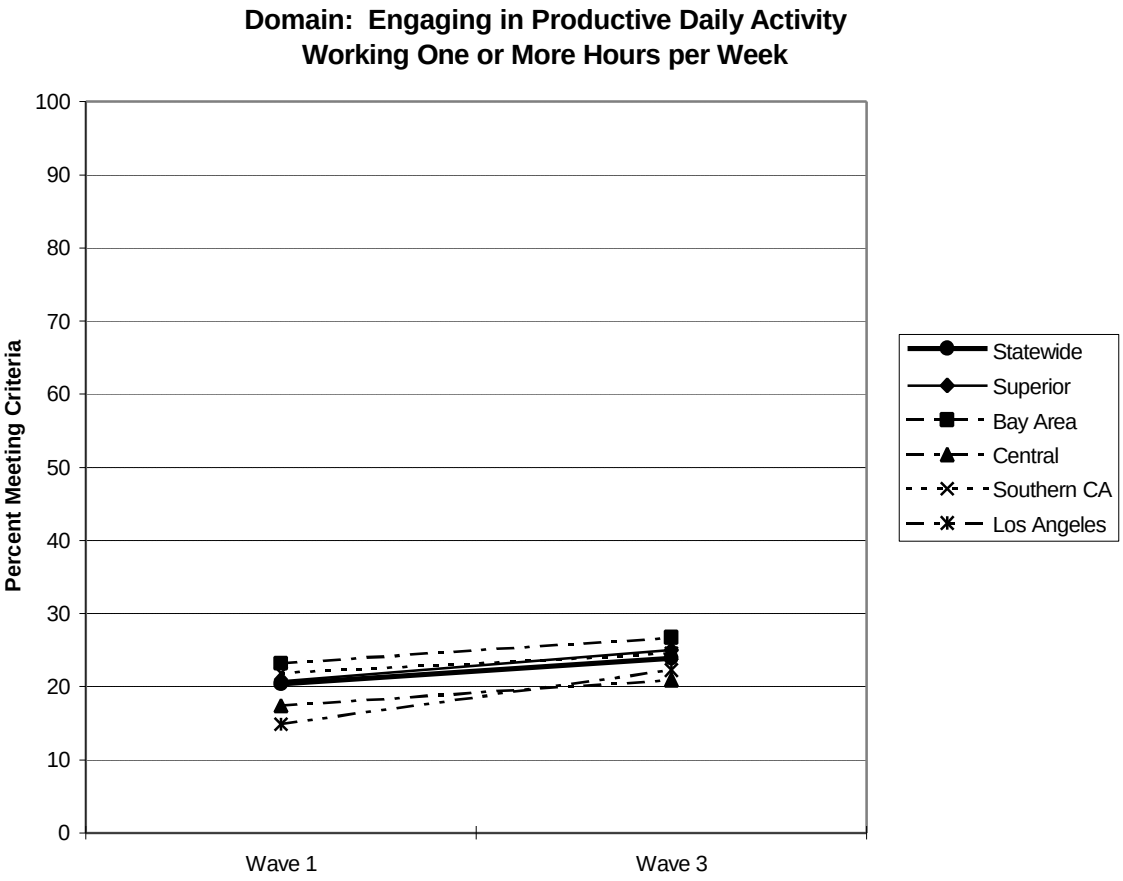
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**33.5**	**35.0**	ns		
Regions					
Superior	**35.5**	**36.4**	ns	ns	ns
Statewide Average without Region's Data	33.0	35.0			
Bay Area	**32.6**	**36.1**	ns	ns	ns
Statewide Average without Region's Data	34.0	35.0			
Central	**35.9**	**36.8**	ns	(above) .05	ns
Statewide Average without Region's Data	32.0	34.0			
Southern CA	**30.8**	**32.4**	ns	(below) .05	(below) .05
Statewide Average without Region's Data	35.0	36.0			
Los Angeles	**30.4**	**26.1**	ns	ns	ns
Statewide Average without Region's Data	34.0	35.0			

Table 15: Engaged in Productive Daily Activity



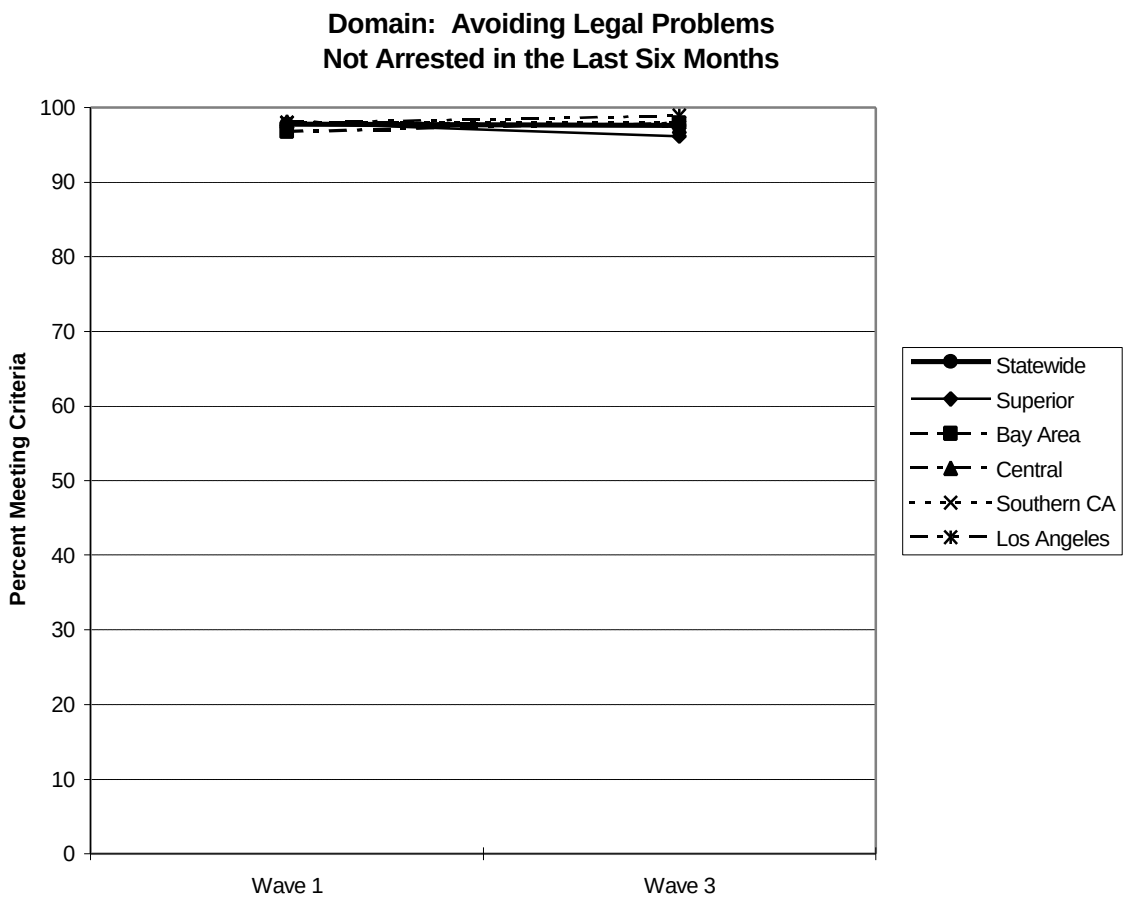
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	**Wave 3**		**Wave 1**	**Wave 3**
Statewide	**48.2**	**48.5**	ns		
Regions					
Superior	**47.2**	**51.9**	ns	ns	(below) .05
Statewide Average without Region's Data	48.0	48.0			
Bay Area	**54.7**	**53.7**	ns	(above) .001	(above) .001
Statewide Average without Region's Data	46.0	47.0			
Central	**44.2**	**41.7**	ns	ns	ns
Statewide Average without Region's Data	50.0	51.0		(below) .001	(below) .001
Southern CA	**47.4**	**49.6**	ns	ns	ns
Statewide Average without Region's Data	48.0	48.0			
Los Angeles	**49.5**	**48.5**	ns	ns	ns
Statewide Average without Region's Data	48.0	48.0			

Table 16: Working One or More Hours Per Week



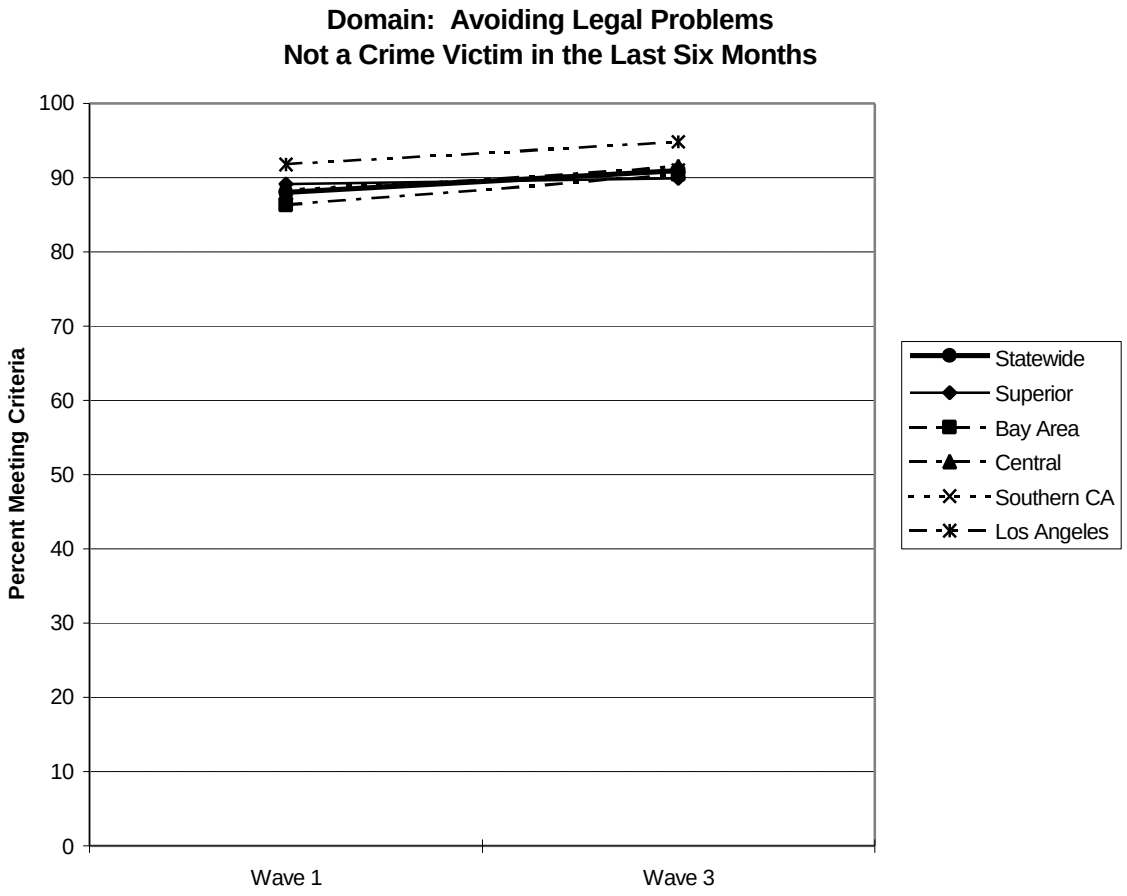
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**20.4**	**23.9**	(increase) <.01		
Regions					
Superior	**20.8**	**25.0**	(increase) .05	ns	ns
Statewide Average without Region's Data	20.0	24.0			
Bay Area	**23.2**	**26.7**	(increase) .05	(above) .05	(above) .05
Statewide Average without Region's Data	20.0	23.0			
Central	**17.4**	**20.9**	(increase) <.01	(below) .01	(below) .01
Statewide Average without Region's Data	22.0	25.0			
Southern CA	**21.8**	**24.5**	ns	ns	ns
Statewide Average without Region's Data	20.0	24.0			
Los Angeles	**14.8**	**22.2**	ns	ns	ns
Statewide Average without Region's Data	21.0	24.0			

Table 17: Not Arrested in the Last Six Months



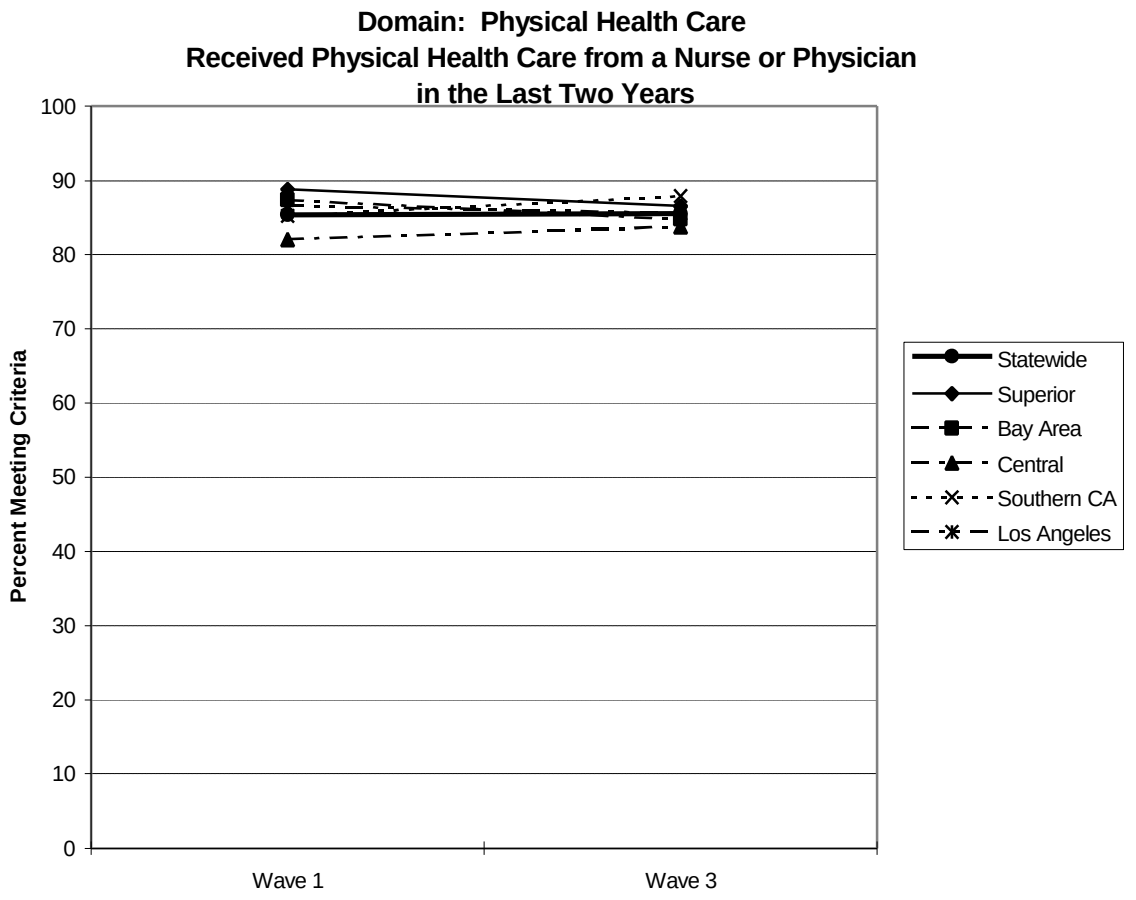
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	**Wave 3**		**Wave 1**	**Wave 3**
Statewide	**97.8**	**97.6**	ns		
Regions					
Superior	**98.0**	**96.2**	(decrease) <.05	ns	(below) .05
Statewide Average without Region's Data	98.0	98.0			
Bay Area	**96.8**	**98.0**	ns	(below) .05	ns
Statewide Average without Region's Data	98.0	97.0			
Central	**98.1**	**97.5**	ns	ns	ns
Statewide Average without Region's Data	98.0	98.0			
Southern CA	**98.0**	**97.9**	ns	ns	ns
Statewide Average without Region's Data	98.0	97.0			
Los Angeles	**97.9**	**99.0**	ns	ns	ns
Statewide Average without Region's Data	98.0	98.0			

Table 18: Not a Crime Victim in the Last Six Months



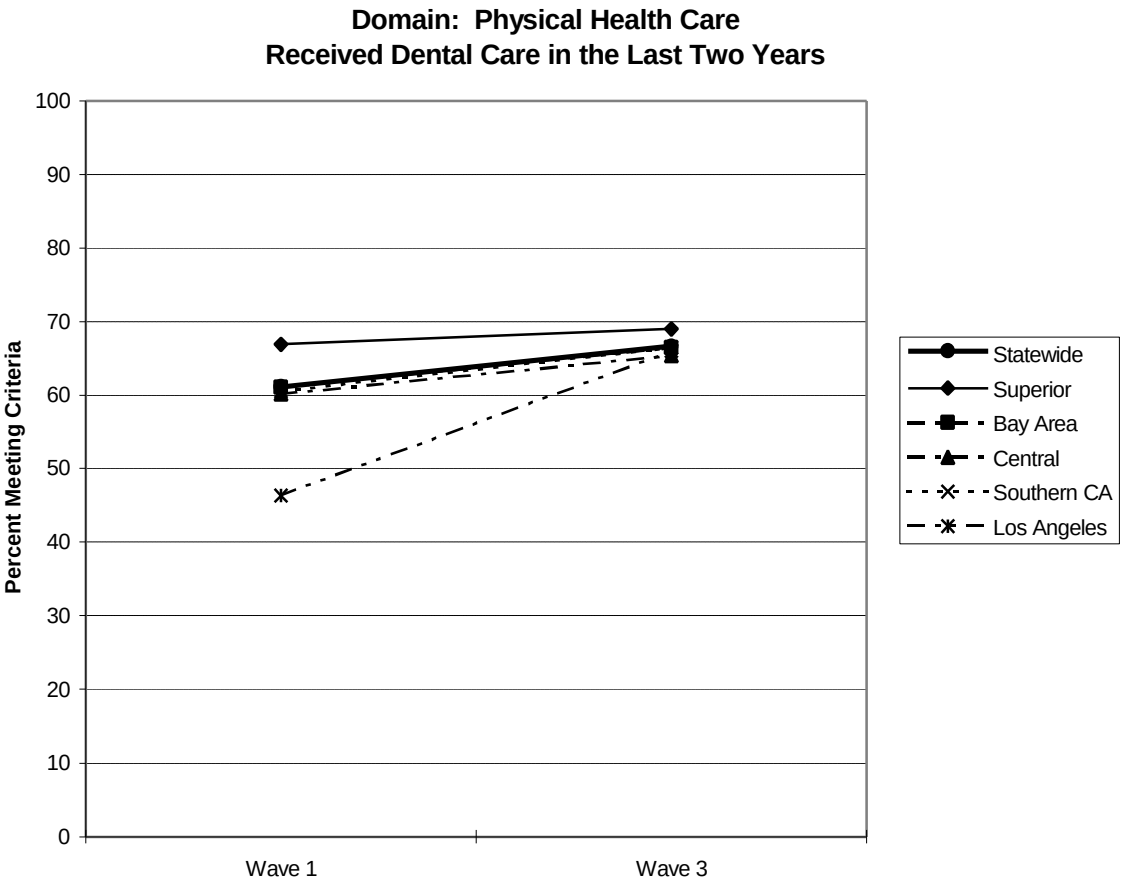
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**88.0**	**90.3**	(increase) <.01		
Regions					
Superior	**88.0**	**91.0**	ns	ns	ns
Statewide Average without Region's Data	88.0	91.0			
Bay Area	**86.3**	**90.5**	(increase) .01	ns	ns
Statewide Average without Region's Data	89.0	91.0			
Central	**87.9**	**91.5**	(increase) <.01	ns	ns
Statewide Average without Region's Data	88.0	91.0			
Southern CA	**88.4**	**91.0**	ns	ns	ns
Statewide Average without Region's Data	88.0	91.0			
Los Angeles	**91.8**	**94.9**	ns	ns	ns
Statewide Average without Region's Data	88.0	91.0			

Table 19: Received Physical Health Care from a Nurse or Physician in the Last Two Years



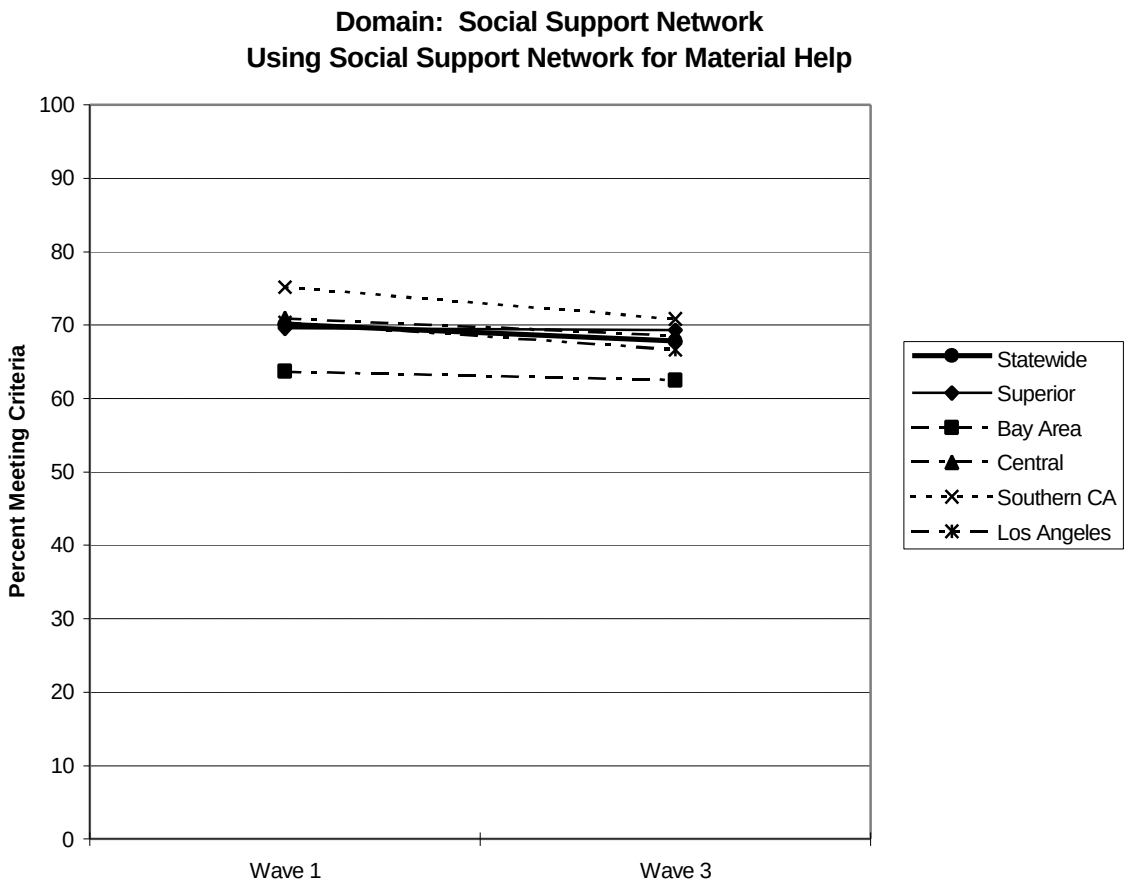
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**85.4**	**85.6**	ns		
Regions					
Superior	**88.8**	**86.6**	ns	(above) .05	ns
Statewide Average without Region's Data	85.0	85.0			
Bay Area	**87.3**	**84.8**	ns	ns	ns
Statewide Average without Region's Data	85.0	86.0			
Central	**82.1**	**83.8**	ns	(below) .001	(below) .05
Statewide Average without Region's Data	87.0	86.0			
Southern CA	**85.3**	**87.9**	ns	(above) .05	ns
Statewide Average without Region's Data	85.0	85.0			
Los Angeles	**86.6**	**85.6**	ns	ns	ns
Statewide Average without Region's Data	85.0	86.0			

Table 20: Received Dental Care in the Last Two Years



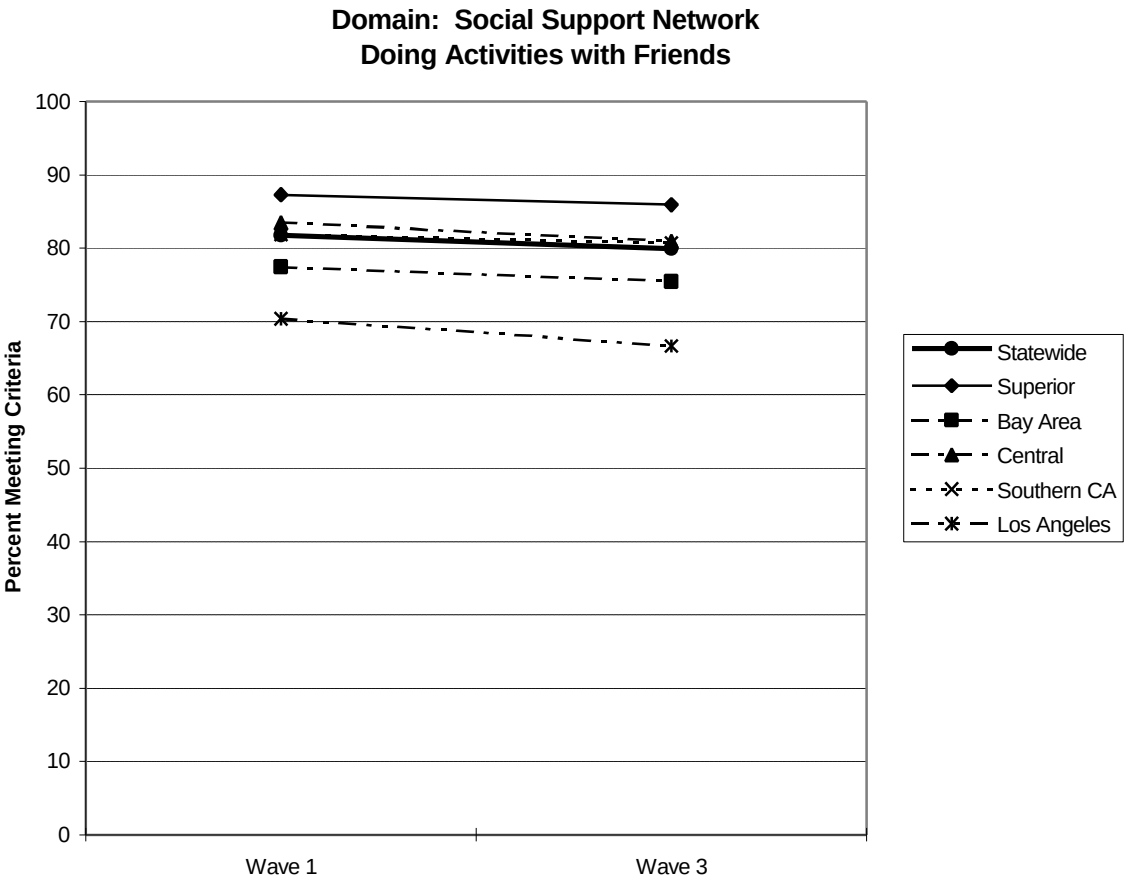
	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**61.1**	**66.6**	(increase) <.01		
Regions					
Superior	**66.9**	**69.0**	ns	(above) .01	ns
Statewide Average without Region's Data	60.0	66.0			
Bay Area	**61.1**	**66.5**	(increase) <.05	ns	ns
Statewide Average without Region's Data	61.0	67.0			
Central	**60.1**	**65.4**	(increase) <.01	ns	ns
Statewide Average without Region's Data	62.0	67.0			
Southern CA	**60.5**	**66.5**	(increase) <.01	ns	ns
Statewide Average without Region's Data	61.0	67.0			
Los Angeles	**46.4**	**66.0**	(increase) <.01	(below) .01	ns
Statewide Average without Region's Data	62.0	67.0			

Table 21: Using Social Support Network for Material Help



	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	**Wave 3**		**Wave 1**	**Wave 3**
Statewide	**70.1**	**67.8**	(decrease) .05		
Regions					
Superior	**69.5**	**69.3**	ns	ns	ns
Statewide Average without Region's Data	70.0	67.0			
Bay Area	**63.7**	**62.5**	ns	(below) .001	(below) .001
Statewide Average without Region's Data	72.0	69.0			
Central	**71.0**	**68.6**	ns	ns	ns
Statewide Average without Region's Data	70.0	67.0			
Southern CA	**75.2**	**70.8**	(decrease) <.05	(above) .001	(above) .05
Statewide Average without Region's Data	68.0	67.0			
Los Angeles	**70.4**	**66.7**	ns	ns	ns
Statewide Average without Region's Data	70.0	68.0			

Table 22: Doing Activities with Friends



	Percent Meeting Criteria		Change Between Wave 1 and Wave 3	Regional Results Compared with Statewide Average	
	Wave 1	Wave 3		Wave 1	Wave 3
Statewide	**81.7**	**79.9**	(decrease) <.05		
Regions					
Superior	**87.2**	**85.9**	ns	(above) .001	(above) .001
Statewide Average without Region's Data	81.0	79.0			
Bay Area	**77.4**	**75.4**	ns	(below) .001	(below) .001
Statewide Average without Region's Data	83.0	81.0			
Central	**83.4**	**80.9**	ns	ns	ns
Statewide Average without Region's Data	81.0	80.0			
Southern CA	**81.8**	**80.6**	ns	ns	ns
Statewide Average without Region's Data	82.0	80.0			
Los Angeles	**69.4**	**68.5**	ns	(below) .001	(below) .01
Statewide Average without Region's Data	82.0	80.0			

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